AUTHOR INDEX

VOLUME 58

A

Abdun-Nur, Edward A.
Discussion, 1036.

Achter, M. R.
See Danek, G. J. and Achter, M. R.
See Shahinian, Paul and Achter, M. R.

Adam, L. H. and Dougherty, Marie
Atmospheric Exposure of Aluminum and Magnesium Sand and Permanent Mold Castings. Report of Committee B-7 (appendix), 194.

Aebersold, Paul C.
Unlimited Horizons for Industrial Use of Radioisotopes. Published in ASTM BULLETIN No. 228, Feb., 27. (Reprinted from *ASTM STP No. 215*, p. 92.)

Algren, A. B.
See Whitby, K. T., Algren, A. B., and Annis, J. C.

Amron, I.
See Koontz, D. E. and Amron, I.
See Koontz, D. E., Thomas, C. O., Craft, W. H., and Amron, I.

Amy, J. A.
See Bigelow, W. C., Amy, J. A., Corey, C. L., and Freeman, J. W.

Anderson, B. R.
Development and Application of High-Temperature Strain Gages for Stress Measurements in Jet Engines—Summary of Proceedings of *STP 230*, 983.

Anderson, W. K.
See Ray, W. E., Anderson, W. K., and Dunning, D. N.

Annis, J. C.
See Whitby, K. T., Algren, A. B., and Annis, J. C.

Antal, John J.
Materials in the Nuclear Age—Summary of Proceedings of *STP 243*, 1359.

Arcan, Mircea
See Goldenberg, Niuma, Arcan, Mircea, and Nicolan, Edward.

Arnold, Stuart V.
Discussion, 621, 953.

Askevold, R. J.
See Walter, F., Evans, R. R., Walker, J., and Askevold, R. J.

Astin, Allen V.
Instrumentation—Where We Stand. Published in ASTM BULLETIN, No. 232, Sept., 7.

Attwooll, A. W.
Discussion. Published in ASTM BULLETIN, No. 228, Feb., 68 (TP74).

B

Babington, W.
See Weissmann, G. F. and Babington, W.

Bailey, R. E.
See Balai, N., Kettles, T. L., and Bailey, R. E.

Bailey, R. E. and Silliman, M. A.
Effects of Irradiation on the Type 347 Stainless Steel Flow Separator in the EBR-I Core—Summary of Proceedings of *STP 233*, 1358.

Balai, N.
Discussion, 858.

Balai, N., Kettles, T. L., and Bailey, R. E.
Reactor Pressure Vessel Design for Nuclear Applications—Summary of Proceedings of *STP 233*, 1358.

Ballantyne, E. R. and Spencer, J. W.
Discussion. Published in ASTM BULLETIN, No. 228, Feb., 67 (TP73). Author's closure, 68 (TP74).

Balmer, Glenn G.
Shear Strength and Elastic Properties of Soil-Cement Mixture Under Triaxial Loading, 1187 (*R*). Disc., 1203.

Baratta, Francis T.
Discussion, 888.

Barber, Edward S.
Examples of Highway Soil Engineering—Summary of Proceedings of *STP 239*, 1279.

Bauer, E. E.
Recent Developments in the Hydrometer Method as Applied to Soils—Summary of Proceedings of *STP 234*, 1280.

Bean, Jr., William T.
Progress on Metalfilm Strain Gages—Summary of Proceedings of *STP 230*, 983.

Beck, Walter
Discussion, 621.

Becker, E. J.
Design and Use of a Mass Spectrometer to Study Gas Problems in Electron Device Development—Summary of Proceedings of *STP 246*, 1367.

Behr, R. D. and Gusack, J. A.
A Stress Computer for the SR-4 Testing Machine. Published in ASTM BULLETIN, No. 228, Feb., 43 (TP49).

Belyea, A. R.
Introduction to Symposium on Radioactivity in Industrial Water and Industrial Waste Water—Summary of Proceedings of *STP 235*, 1360.

Benn, D. R.
See Elkind, M. J. and Benn, D. R.

Bennett, J. A. and Weinberg, J. G.
A Toric Bending Specimen for Investigation of Geometrical Factors in Fatigue. Published in ASTM BULLETIN, No. 234, Dec., 53 (TP265).

Berg, R. H.
Three-Dimensional Electronic Sizing of Sub-Sieve Particles at 6000 per second—Summary of Proceedings of *STP 234*, 1280.

Berg, Soren
New Methods for Determining Particle Size Distribution by Examining Gravitational and Centrifugal Sedimentation—Summary of Proceedings of *STP 234*, 1280.

Berman, Irwin
See Yanowitz, Herbert, Berman, Irwin, and Bleiweis, Alfred

Bernsten, R. A.
See Erickson, E. R., Bernsten, R. A., Hill, E. L., and Kusy, Paul

Bertholf, W. M.
The Effect of Increment Weight on Sampling Accuracy—Summary of Proceedings of *STP 242*, 1362.

Bestelink, P. N. and Turner, S.
The Low-Temperature Brittleness Testing of Polyethylene. Published in ASTM BULLETIN, No. 231, July, 68 (TP156).

Bigelow, W. C., Amy, J. A., Corey, C. L., and Freeman, J. W.
An Electron Metallographic Study of the Precipitation-Hardening Process in Commercial Nickel-Base Alloys—Summary of Proceedings of *STP 245*, 982.

Bigelow, W. C., Brockway, L. O., and Freeman, J. W.
The Application of Electron Diffraction and Electron Microscopy in Studies of Minor Phases of Heat-Resistant Alloys—Summary of Proceedings of *STP 245*, 982.

Billings, Bruce H.
Instruments in Materials Research—Summary of Proceedings of *STP 243*, 1359.

Bingham, Jr., R. S., Gioele, J. L., and Shelburne, V. B.
Studies in Ore Car and Abrasive Grain Sampling Variation—Summary of Proceedings of *STP 242*, 1362.

Biondi, F. J.
Introduction to Symposium on Cleaning of Electronic-Device Components and Materials—Summary of Proceedings of *STP 246*, 1367.

Birdsall, H. A.
Introduction to Symposium on Paper and Paper Products—Summary of Proceedings of *STP 241*, 1363.

Birks, L. S. and Brooks, E. J.
Electron Probe Analysis of Segregation in Inconel—Summary of Proceedings of *STP 245*, 982.

Bleiweis, Alfred
See Yanowitz, Herbert, Berman, Irwin, and Bleiweis, Alfred

Bloem, Delmar, L.
Discussion, 1157.
See Walker, Stanton and Bloem, Delmar, L.

Bloss, R. L.
A Facility for the Evaluation of Resistance Strain Gages at Elevated Temperatures—Summary of Proceedings of *STP 230*, 983.

Bohn, Jack R. and Murphy, Glenn
High-Temperature Fatigue Testing—With Application to Uranium. Published in ASTM BULLETIN, No. 234, Dec., 57 (TP269).

Boller, Kenneth H.
Discussion, 856.

Bossu, B.
See Dubois, P., Bossu, B., and Chatain, M.

Boswell, F. W. C. and Smith, E.
Examination of Metals by Transmission Electron Microscopy—Summary of Proceedings of *STP 245*, 982.

Bouche, Raymond R. and Tate, Douglas R.
Autographic Stress-Strain Recorders. Published in ASTM BULLETIN, No. 228, Feb., 33 (TP39 (*R*). Disc. 42 (TP48).

Bragg, R. H.
See Copeland, L. E. and Bragg, R. H.

Brandt, Francis, A.
Discussion, 634.

Brandvold, W. W.
See Hansen, W. C., Vellines, R. P., and Brandvold, W. W.

Breen, J. E. and Dwyer, Arthur S.
The Fatigue Strength of Magnesium Alloy HK31 as Modified by a Weld Joint. Published in ASTM BULLETIN, No. 234, Dec., 60 (TP272).

Breindel, W. W., Seale, C. L., and Carlson, R. L.
Evaluation of a Single-Shear Specimen for Sheet Material, 862.

Brewer, G. A.
The Synthetic Mica Gage—Summary of Proceedings of *STP 230*, 983.

Bridges, W. H. and Long, Jr., E. L.
A Technique for Easy Removal of Direct Replicas for Electron Microscopy—Summary of Proceedings of *STP 245*, 982.

Brink, R. H.
Discussion, 1033.

Briton, M. D.
See O'Konski, Chester T., Briton, M. D., and Higuchi, W. I.

Britt, K. W.
New Developments in the Internal Bonding of Paper—Summary of Proceedings of *STP 241*, 1363.

Brockway, L. O.
See Bigelow, W. C., Brockway, L. O., and Freeman, J. W.

Brooks, E. J.
See Birks, L. S. and Brooks, E. J.

Brown, A. B., Sparks, J. W., and Marsh, G. E.
Objective Appraisal of Stripping of Asphalt from Aggregate—Summary of Proceedings of *STP 240*, 1326.

Brown, Elwood H.
See Polivka, Milos and Brown, Elwood H.

Brown, M. G.
See Rhodes, C. C., Janson, M. H., and Brown, M. G.

Brown, M. John and Thompson, Gordon V.
Creating Test Atmospheres at −260 F. Published in ASTM BULLETIN, No. 231, July, 59 (TP147).

Bruce, H. D. and Miniutti, V. P.
Small Tunnel-Furnace Test for Measuring Surface Flammability. Published in ASTM BULLETIN, No. 230, May, 61 (TP139).

Bryan, E. A.
See Cremens, W. S., Bryan, E. A., and Grant, N. J.

Burnett, H. C.
A Recording Torsion Testing Machine for Wire. Published in ASTM BULLETIN, No. 227, Jan., 68 (TP34).
Torsional Fatigue Properties of Small Diameter High-Carbon Steel Wire, 515. Disc., 525.

Burns, Robert
Materials Standards in U.S.A. with Particular Reference to Plastics—Summary of Proceedings of *STP 247*, 1369.

Burrill, E. A.
See Wegener, A. F. and Burrill, E. A.

Buzzard, E.
See Pitts, J. W., Buzzard, E., and Moore, D. G.

C

Cadle, R. D. and Thuman, W. C.
The Stanford Research Institute Particle Bank—Summary of Proceedings of *STP 234*, 1280.

Cahn, Harold L. and Mackey, Jr., Royal V.
Extending Concrete Highway Durability and Light Reflectance with Silicones. Published in ASTM BULLETIN, No. 235, Jan., 1959, 37(TP7); Disc., 41(TP11).

Calbeck, J. H.
A Discussion of the Recommended Practice of Reporting Particle Size Characteristics of Pigments (ASTM Tentative Method D 1366 – 55 T).—Summary of Proceedings of *STP 234*, 1280.

Carlson, R. L.
See Breindel, W. W., Seale, C. L., and Carlson, R. L.
See Fisher, D. H., Carlson, R. L., and Lankford, W. T.

Carpenter, Arthur W.
The Tower of Babel. Published in ASTM BULLETIN, No. 227, Jan., 28 (*R*).

Carroll, K. G.
See Mihalisin, J. R. and Carroll, K. G.

Carroll, Kenneth G.
Discussion, 712.

Cartwright, L. M. and Gregg, R. O.
A Liquid Sedimentation Method for Particle Size Distributions—Summary of Proceedings of *STP 234*, 1280.

Chaiken, Bernard
See Halstead, W. J. and Chaiken, Bernard.

Chaikin, Saul W.
See Thomas, Moyer D., St. John, Gilbert A., and Chaikin, Saul W.

Chambers, Richard E. and McGarry, Frederick, J.
Tensile and Compressive Properties of Fiberglass Reinforced Laminates. Published in ASTM BULLETIN, No. 233, Oct., 40 (TP222) (*R*).

Chatain, M.
See Dubois, P., Bossu, B., and Chatain, M.

Chmura, M.
See Strella, S., Sigler, H., Chmura, M., and Holman, B.

Christine, R. J.
Discussion, 910.

Chryssafopoulos, Nicholas
The Soil Exploration and Mapping Cooperative Project in Illinois—Summary of Proceedings of *STP 239*, 1279.

Clancy, W. P. and Norton, M. R.
Microstructural Observations Pertinent to the Tempering and Temper Brittleness of Steel, 912 (*R*). Disc., 931.

Clapper, Robert B.
Isochronous Stress-Strain Curves for Some Magnesium Alloys Showing the Effects of Varying Exposure Times on Their Creep Resistance, 812.

Clinkenbeard, W. L.
How Distillate Fuel Stability Is Measured and Controlled—Summary of Proceedings of *STP 244*, 1364.

Clougherty, L. B.
See Twiss, S. B. and Clougherty, L. B.

Coffin, Jr., L. F.
A Mechanism for Nonpropagating Fatigue Cracks, 570.

Colp, John L. and Snyder, A. William
An Integrated Facility for Study of Effects of Nuclear Radiation on Materials—Summary of Proceedings of *STP 233*, 1358.

Colp, John L. and Woodall, H. N.
Effects of High Neutron and Gamma Fluxes on Transmission Characteristics of Some Optical Glasses—Summary of Proceedings of *STP 233*, 1358.

Colwell, R. E.
See Merz, E. H. and Colwell, R. E.

Conklin, George E.
See Ruh, Ernest L. and Conklin, George E.

Corey, C. L.
See Bigelow, W. C., Amy, J. A., Corey, C. L., and Freeman, J. W.

Copeland, L. E. and Bragg, R. H.
Preparation of Samples for the Geiger Counter Diffractometer. Published in ASTM BULLETIN, No. 228, Feb., 56 (TP62).

Costecu, Dan C.
Suggestion for Classification of Macromolecular Products Based on the Correlation Between Structure and Properties of High Polymers—Summary of Proceedings of *STP 247*, 1369 (*presented by title only*).

Cox, William L.
Chemical Antiozonants and Factors Affecting Their Utility—Summary of Proceedings of *STP 229*, 1365.

Cox, W. P.
See Merz, E. H. and Cox, W. P.

Craft, W. H.
See Koontz, D. E., Thomas, C. O., Craft, W. H., and Amron, I.

Crawford, S. C.
See Hickle, J. C. and Crawford, S. C.

Cremens, W. S., Bryan, E. A., and Grant, N. J.
Temperature and Time Stability of M257 and SAP Aluminum-Aluminum Oxide Alloys, 753. Disc., 760.

Cremens, Walter S., and Grant, Nicholas J.
Preparation and High-Temperature Properties of Nickel-Al_2O_3 Alloys, 714 (*R*). Disc., 731.

Critz, P. F.
Laboratory Study of Anti-Stripping Additives for Bituminous Materials—Summary of Proceedings of *STP 240*, 1326.

Cross, H. C.
Discussion, 760.

Crum, Ralph G. and Mavis, F. T.
Behavior of Certain Alloys Subjected to Dynamic Loading. Published in ASTM BULLETIN, No. 231, July, 88 (TP176).

Cummings, E. W.
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 40 (TP252).

Cummings, H. N.
Discussion, 910.

Cummings, H. N., Stulen, F. B., and Schulte, W. C.
Tentative Fatigue Strength Reduction Factors for Silicate-Type Inclusions in High-Strength Steels, 505. Disc., 512.

D

Daeschner, H. W., Seibert, E. E., and Peters, E. D.
Application of Electroformed Precision Micromesh Sieves to the Determination of Particle Size Distribution of Cracking Catalyst—Summary of Proceedings of *STP 234*, 1280.

Danek, G. J., Jr. and Achter, M. R.
A High-Temperature, Vacuum, and Controlled-Environment Fatigue Tester. Published in ASTM BULLETIN, No. 234, Dec., 48 (TP260). Disc., 52 (TP264).

Danner, George E.
Inspection of Large Rotor Forgings—Summary of Proceedings of *STP 231*, 984.

Davidson, D. T., Katti, R. K., Kallman, M. E., and Gurland, John
Correlation of the California Bearing Ratio and the Iowa Bearing Value—Summary of Proceedings of *STP 232*, 1278.

Davis, R. E.
See Troxell, G. E., Raphael, J. M., and Davis, R. E.

Dawson, R. F.
Laboratory Consolidation Tests for Expansive Clays—Summary of Proceedings of *STP 232*, 1278.

Day, Emmett E.
Recent Laboratory Evaluation of High Temperature Strain Gages to 900 F—Summary of Symposium of *STP 230*, 983.

Dean, J. A.
The Role of Organic Solvents in Flame Photometry—Summary of Proceedings of *STP 238*, 985.

Deem, H. W.
See Lucks, C. F. and Deem, H. W.

DeMichele, D. J.
Problems in Thermal Stress Measurements—Summary of Proceedings of *STP 230*, 983.

Deming, W. E.
The Purposes of Sampling—Summary of Proceedings of *STP 242*, 1362.

Dempsey, John G.
The Effect of Fine Aggregate Characteristics Other Than Grading on Strength and Durability of Portland-Cement Mortar, 1121. Disc., 1135.

DeSisto, Thomas S. and Driscoll, David E.
A True Stress-True Strain Computer. Published in ASTM BULLETIN, No. 228, Feb., 46 (TP52).

De Souza, J. M.
See Roberts, J. E. and De Souza, J. M.

Dever, Henry F.
Instrumentation in the Space Age. Published in ASTM BULLETIN, No. 234, Dec., 33.

Diaz, R. J.
Clupak Paper—A New Type of High Stretch Paper—Its Manufacture and Performance—Summary of Proceedings of *STP 241*, 1363.

Doan, R. L.
The Engineering Test Reactor as an Irradiation Facility—Summary of Proceedings of *STP 233*, 1358.

Doane, D. V.
Discussion, 752.

Dolan, T. J.
Discussion, 526, 550, 967. Published in ASTM BULLETIN, No. 234, Dec., 52 (TP264).
Introduction to Symposium on Basic Mechanism of Fatigue—Summary of Proceedings of *STP 237*, 596.

Donahue, D. Joseph
See Slater, Morris N. and Donahue, D. Joseph
See Stern, Herman H. and Donahue, D. Joseph

Donovan, A. F.
See Graham, F. E. and Donovan, A. F.

Dougherty, Marie
See Adam, L. H. and Dougherty, Marie

Drew, D. A.
High-Temperature Strain Gage Testing at Rolls-Royce—Summary of Proceedings of *STP 230*, 983.

Driscoll, David E.
See DeSisto, Thomas S. and Driscoll, David E.

Drucker, E. E.
An In-Pile Fatigue Testing Apparatus—Summary of Proceedings of *STP 233*, 1358.

Dubinsky, M. J.
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 40 (TP252).

Dubois, P., Bossu, B., and Chatain, M.
Basic Considerations on the Mechanical Properties of Molded Plastic Objects—Summary of Proceedings of *STP 247*, 1369.

Duncan, Acheson J.
Measurement Error Considerations in Bulk Sampling with Special Reference to the Sampling of Fertilizer—Summary of Proceedings of *STP 242*, 1362.

Dunn, Jr., F. R. and Sauer, R. W.
Distillate Fuel Oil Gel—Summary of Proceedings of *STP 244*, 1364.

Dunning, D. N.
See Ray, W. E., Anderson, W. K., and Dunning, D. N.

Dwyer, Arthur S.
See Breen, J. E. and Dwyer, Arthur S.

Dyall, W. T. and Herman, L. C.
Planning and Operating a Clean Shop—Summary of Proceedings of *STP 246*, 1367.

E

Edmands, N. M.
Trials and Tribulations of a Large Development Oil Heating—Summary of Symposium of *STP 244*, 1364.

Ehlers, Gerard
How German Standards Are Achieved—Summary of Proceedings of *STP 247*, 1369.

Ek, Harold C.
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 52 (TP264).
See Hawkes, Paul E. and Ek, Harold C.

Ekse, Martin
The Value of Soil Test Data in Local and Regional Road Planning—Summary of Proceedings of *STP 239*, 1279.

Elkind, M. J. and Benn, D. R.
Method of Analysis and Control of Gas Atmospheres Used in the Processing of Electronic Parts and Devices—Summary of Proceedings of *STP 246*, 1367.

Elmquist, E. A.
A Review of The Distillate Fuel Stability Problem—Summary of Proceedings of *STP 244*, 1364.

Emme, F. E.
See Kelch, N. W. and Emme, F. E.

Epstein, Samuel
Discussion, 931.

Erickson, E. R., Bernsten, R. A., Hill, E. L., and Kusy, Paul
A Study of the Action of Ozone with Polybutadiene Rubbers—Summary of Proceedings of *STP 229*, 1365.

Etter, Robert W.
Cathodic Electrocleaning of Molybdenum Wire Prior to Gold Plating—Summary of Proceedings of *STP 246*, 1367.

Evans, R. R.
See Walter, F., Evans, R. R., Walker, J., and Askevold, R. J.

F

Faust, Jr., J. W.
Cleanness Factors in Mechanical Processes and Etching of Semiconductors—Summary of Proceedings of *STP 246*, 1367.

Favor, R. J.
See Hyler, W. S., Tarasov, L. P., and Favor, R. J.

Feder, D. O. and Koontz, D. E.
Detection, Removal, and Control of Organic Contaminants in the Production of Electron Devices—Summary of Proceedings of *STP 246*, 1367.

Felt, Earl J.
Laboratory Methods of Compacting Granular Soil—Summary of Proceedings of *STP 239*, 1279.

Fenn, Jr., Raymond W.
Young's Modulus of Magnesium Alloys as Function of Temperature and Metallurgical Variables, 826 (*R*). Disc., 838.

Fenn, Jr., Raymond W. and Gusack, James A.
Effect of Strain Rate and Temperature on the Strength of Magnesium Alloys, 685.

Fenton, D. D.
Field Experience and Laboratory Study of Slow-Setting Paving Grade Asphalt in Airfield Pavement Construction, 1306.

Ferguson, Harold W.
ASTM and the Refining Industry. Published in ASTM BULLETIN, No. 230, May, 24.

Ferris, S. W., Kurtz, Jr., S. S., and Sweely, J. J.
Prevention of Ozone Attack on Rubber by Use of Waxes—Summary of Proceedings of *STP 229*, 1365.

Findley, W. N., and Peterson, D. B.
Prediction of Long-Time Creep with Ten-Year Creep Data on Four Plastic Laminates, 841 (*R*). Disc., 856.

Finney, C. S.
Discussion. Published in ASTM BULLETIN, No. 231, July, 84 (TP172).

Fisher, D. H., Carlson, R. L., and Lankford, W. T.
The Effects of Strain Rate and Temper Rolling on the Strain-Aging Characteristics of Rimmed Deep-Drawing Steel, 932.

Fitzgerald, J. V. and Kastenbein, E. L.
Tests for Engineering Properties of Ceramic Tile. Published in ASTM BULLETIN, No. 231, July, 74 (TP162) (*R*).

Ford, C. L.
Determination of the Apparent Density of Hydraulic Cement in Water Using a Vacuum Pycnometer. Published in ASTM BULLETIN, No. 231, July, 81 (TP169).
The Successive Determination of Manganese, Sodium, and Potassium in Cement by Flame Photometry. Published in ASTM BULLETIN, No. 233, Oct., 57 (TP239).

Forlifer, William R.
Laboratory Evaluation of Nichrome-Foil Strain Gage Installations up to 1200 F—Summary of Proceedings of *STP 230*, 983.

Forsyth, P. J. E.
Fatigue Crack Formation in Silver Chloride—Summary of Proceedings of *STP 237*, 596.

Foster, C. R.
See Turnbull, W. J. and Foster, C. R.

Foster, Harry D.
Exploratory Fire Tests with Small-Scale Specimens. Published in ASTM BULLETIN, No. 228, Feb., 66 (TP72).

Foulkes, T. G.
Rotor Forgings for Power Equipment Manufacturers—Summary of Proceedings of *STP 231*, 984.

Frankel, H. E.
Discussion, 550.

Frederick, K. J.
See Ober, S. S. and Frederick, K. J.

Freeman, J. W.
See Bigelow, W. C., Amy, J. A., Corey, C. L., and Freeman, J. W.
See Bigelow, W. C., Brockway, L. O., and Freeman, J. W.

Freiser, H.
Introduction to Symposium on Solvent Extraction in the Analysis of Metals—Summary of Proceedings of *STP 238*, 985.

Friedman, Richard
Temperature Compensation Techniques—Summary of Proceedings of *STP 230*, 983.

Fries, R. J.
The Determination of Particle Size by Adsorption Methods—Summary of Proceedings of *STP 234*, 1280.

G

Gaynor, Richard, D.
Discussion, 1157.

Ghirelli de Ciaburri, Beatriz
Materials Standardization in Argentina (translated from the Spanish). Published in ASTM BULLETIN, No. 230, May, 20.

Gibbs, Harold J.
Discussion, 1203.

Gilman, J. J.
See Keith, R. E. and Gilman, J. J.

Gioele, J. L.
See Bingham, Jr., R. S., Gioele, J. L., and Shelburne, V. B.

Glass, H. M.
See Weston, G. and Glass, H. M.

Goetz, W. H.
Methods of Testing for Water Resistance of Bituminous Paving Mixtures—Summary of Proceedings of *STP 240*, 1326.
See Shupe, J. W. and Goetz, W. H.

Goetzel, Claus G.
Discussion, 731.

Gohn, G. R.
Discussion, 839.
See Torrey, M. N., Gohn, G. R., and Wilk, M. B.

Goldenberg, Niuma, Arcan, Mircea, and Nicolan, Edward
On the Most Suitable Shape for Plastics Materials Specimens Intended for Measurement of Their Shear Strength—Summary of Proceedings of *STP 247*, 1369 (*presented by title only*).

Goldfein, Solomon
Discussion. Published in ASTM BULLETIN No. 229, April, 65 (TP83). Author's closure 66 (TP84).

Graft, W. H.
Development of High Temperature Strain Gage Wire—Summary of Proceedings of *STP 230*, 983.
Discussion, 838.

Graham, F. E. and Donovan, A. F.
Effects of Nuclear Radiation on Natural Quartz Piezoelectric Crystals: Preliminary Investigations—Summary of Proceedings of *STP 233*, 1358.

Graney, E. T.
See Kern, H. E. and Graney, E. T.

Grant, N. J.
See Cremens, W. S., Bryan, E. A., and Grant, N. J.
See Cremens, Walter S. and Grant, Nicholas, J.
See Rogen, Neil E. and Grant, Nicholas J.

Gray, Edward I., Grossman, Arthur, and Rubin, Melvin R.
Temperature Compensation of High Temperature Strain Gages—Summary of Proceedings of *STP 230*, 983.

Gray, J. E.
Discussion, 1135.

Gray, R. J.
See Long, Jr., E. L. and Gray, R. J.

Gray, Robert
Do We Need a Stability Specification No. 2 Heating Oil—Summary of Proceedings of *STP 244*, 1364.

Gregg, R. O.
See Cartwright, L. M. and Gregg, R. O.

Griessel, R. W.
Use of the Mass Spectrometer to Evaluate the Effectiveness of Processing Tube Materials —Summary of Proceedings of *STP 246*, 1367.

Griffin, Donald F.
In-Place Density Tests of Cohesionless Coarse-Grain Base-Course Material. Published in ASTM BULLETIN, No. 230, May, 31 (TP109).

Groennings, Sigurd
Refractivity Intercept-Density Chart for the Determination of Total Naphthenes in Gasoline. Published in ASTM BULLETIN, No. 227, Jan., 64 (TP30).

Gross, Daniel and Loftus, Joseph J.
Flame Spread Properties of Building Finish Materials. Published in ASTM BULLETIN, No. 230, May, 56 (TP134).

Grossman, Arthur
See Gray, Edward I., Grossman, Arthur, and Rubin, Melvin R.

Grossman, Sidney S.
See Martin, William I., Grossman, Sidney S., and McGovern, J. J.

Groth, W. G.
Applications of Aluminum and Magnesium in the Nuclear Industries. Report of Comittee B-7 (appendix), 210.

Guard, Ray W.
Discussion, 709.

Gurland, John
See Davidson, D. T., Katti, R. K., Kallman, M. E., and Gurland, John

Gusack, James A.
See Behr, R. D. and Gusack, J. A.
See Fenn, Jr., Raymond W., and Gusack, James A.

H

Haagen-Smit, A. J.
Rubber and Its Environment—Summary of Proceedings of *STP 229*, 1365.

Hagee, G. R.
See Setter, L. R., Hagee, G. R., and Straub, C. P.

Hall, H. Warburton
Mechanical Properties of Plastics at High Speed of Testing—Summary of Proceedings of *STP 247*, 1369.

Haller, Elliot, A.
Discussion, 1163.

Halstead, W. J. and Chaiken, Bernard
Insoluble Residue Determination in Portland and Portland-Slag Cements. Published in ASTM BULLETIN, No. 229, April, 60 (TP78).

Handley, T. H.
See Kahn, B., Moeller, D. W., Handley, T. H., and Reynolds, S. A.

Hansen, W. C.
Aeration Cause of False Set in Portland Cement, 1044 (*R*). Disc., 1050.
Hydraulic Cement for Water Tanks and Pipe Lines. Published in ASTM BULLETIN, No. 232, Sept., 51 (TP199).

Hansen, W. C., Vellines, R. P., and Brandvold, W. W.
Corrosion of Concrete by Sulfuric Acid. Published in ASTM BULLETIN, No. 231, July, 85 (TP173).

Harner, H. R. and Musgrave, J. R.
A Photoelectric Sedimentation Method for Particle Size Determination in the Sub-Sieve Range—Summary of Proceedings of *STP 234*, 1280.

Harpham, J. A.
A New Cotton Paper Furnish—Properties, Applications, Identification—Summary of Proceedings of *STP 241*, 1363.

Hart, W.
See Pohorilla, M. J. and Hart, W.

Hartbower, Carl
See Orner, George M. and Hartbower, Carl E.

Hawkes, Paul E. and Ek, C. Harold
A Machine for Evaluation of High-Temperature Alloys Under Combined Static and Dynamic Stresses. Published in ASTM BULLETIN, No. 235, Jan., 1959, 46 (TP16); Disc., 51 (TP21).

Hayward, B. R., Wilkinson, L. E., and Woolsey, C. C.
Radiation Behavior of Fuel Materials for Sodium Graphite Reactors—Summary of Proceedings of *STP 233*, 1358.

Heldman, Morris J.
See Spurr, Robert A., Heldman, Morris J., and Myers, Howard

Helmke, G. E.
See Pondy, P. R. and Helmke, G. E.

Helms, S. B.
Discussion, 1181.

Hempel, M. R.
Slipband Formation and Fatigue Cracks Under Alternating Stress—Summary of Proceedings of *STP 237*, 596.

Henderson, J. G.
Status of D319 Cr-Ni-Mo Stainless Steel. Published in ASTM BULLETIN, No. 234, Dec., 23.

Herman, L. C.
See Dyall, W. T. and Herman, L. C.

Heyer, R. H.
Discussion, 967.

Hibbard, Jr., W. R.
New Advances in Physical Metallurgy—Summary of Proceedings of *STP 243*, 1359.

Hickle, J. C. and Crawford, S. C.
Effects of Parts Cleaning on Tube Performance—Summary of Proceedings of *STP 246*, 1367.

Higuchi, W. I.
See O'Konski, Chester T., Briton, M. D., and Higuchi, W. I.

Hilf, J. W.
A Rapid Method of Construction Control for Embankments of Cohesive Soil—Summary of Proceedings of *STP 232*, 1278.

Hill, E. L.
See Erickson, E. R., Bernsten, R. A., Hill, E. L., and Kusy, Paul

Hills, D. C.
Discussion. Published in ASTM BULLETIN, No. 231, July, 84 (TP172).

Hines, Frank F.
Foil Gages for High-Temperature Applications—Summary of Proceedings of *STP 230*, 983.

Hippel, von, Arthur
Molecular Engineering—Summary of Proceedings of *STP 243*, 1359.

Hochwalt, C. A.
Standards and the New Science of Materials. Published in ASTM BULLETIN, No. 230, May, 27 (TP105).

Hodge, J. M.
Discussion, 620, 931.

Hogberg, Hilding
Anisotropic Effects in Testing Plastics—Summary of Proceedings of *STP 247*, 1369.

Holaday, William M.
Missile Reliability—A Challenge to Materials Engineers. Published in ASTM BULLETIN, No. 229, April, 50.

Holman, B.
See Strella, S., Sigler, H., Chmura, M., and Holman, B.

Holtz, W. G. and Lowitz, C. W.
Compaction Characteristics of Gravelly Soils—Summary of Proceedings of *STP 232*, 1278.

Howard, E. L.
Discussion, 1141.

Howerton, H. K.
Optical Strain Gages for Use at Elevated Temperatures—Summary of Proceedings of *STP 230*, 983.

Howes, Jr., D. E.
See Sprangler, W. G., Howes, Jr., D. E., and Kish, J. A.

Hoyt, S. L.
Discussion, 620, 637. Published in ASTM BULLETIN, No. 231, July, 64 (TP152).

Hu, L. W.
A Note on the Effect of Pressurization on the Fatigue Life of Metals. Published in ASTM BULLETIN, No. 234, Dec., 63 (TP275).

Hubbard, Fred
See Lewis, D. W. and Hubbard, Fred

Huber, A. W.
Fixtures for Testing Pin-End Columns. Published in ASTM BULLETIN, No. 234, Dec., 41 (TP253).

Hudson, F.
Discussion, 808.

Hussey, Jr., George F.
Introduction to Symposium on Plastics Testing and Standardization—Summary of Proceedings of *STP 247*, 1369.

Hutcheon, N. B.
See Legget, R. F. and Hutcheon, N. B.

Hyler, W. S.
See Tarasov, L. P., Hyler, W. S., and Letner, H. R.

Hyler, W. S., Tarasov, L. P., and Favor, R. J.
Distribution of Fatigue Failures in Flat Hardened Steel Test Bars, 540. Disc., 550.

Hynek, R. J.
8-Hydroxyquinaldine Extractions Applied to the Analysis of Metals—Summary of Proceedings of *STP 238*, 985.

I

Irwin, G. R.
Discussion, 659, 676, 683.

Irwin, G. R., Kies, J. A., and Smith, H. L.
Fracture Strengths Relative to Onset and Arrest of Crack Propagation, 640 (*R*). Disc., 658.

J

Jacobsen, A. E.
See Sullivan, W. F. and Jacobsen, A. E.

Janson, M. H.
See Rhodes, C. C., Janson, M. H., and Brown, M. G.

John, H. F.
The Preparation of High-Purity Methyl Alcohol for Use with Semiconductor Devices—Summary of Proceedings of *STP 246*, 1367.

Johns, Henry
New Device Tests Contraction Joint Sealer—Technical Notes. Published in ASTM BULLETIN, No. 232, Sept., 67 (TP215).

Johns, H.
Discussion, 1073.

Johnson, K. D.
"Operation Snow White"—An Approach to Higher Reliability in Receiving Tubes—Summary of Proceedings of *STP 246*, 1367.

Johnson, P. V. and Plummer, H. C.
Some Factors Affecting Durability of Structural Clay Product Masonry—Summary of Proceedings of *STP 236*, 1361.

Johnson, William R.
Discussion, 525, 538.

Jones, R. T. and MacDonald, J. W.
Predictive Type Tests for Storage Stability and Compatibility of Diesel Fuels—Summary of Proceedings of *STP 244*, 1364.

Joslin, J. G.
Ohio's Typical Moisture-Density Curves—Summary of Proceedings of *STP 239*, 1279.

Judson, L. V.
A Review of Sieve Standardization—Summary of Proceedings of *STP 234*, 1280 (*presented by title only*).

Juillard, Michel
The Function of the Temperature on the Phenomena of Transition in the Study of Impact Strength—Summary of Proceedings of *STP 247*, 1369.

K

Kahn, B., Moeller, D. W., Handley, T. H., and Reynolds, S. A.
Analysis for Radionuclides in Aqueous Wastes from an Atomic Plant—Summary of Proceedings of *STP 235*, 1360.

Kallman, M. E.
See Davidson, D. T., Katti, R. K., Kallman, M. E., and Gurland, John

Kanter, J. J.
Discussion, 751.

Kastenbein, E. L.
See Fitzgerald, J. V. and Kastenbein, E. L.

Katti, R. K.
See Davidson, D. T., Katti, R. K., Kallman, M. E., and Gurland, John

Kattus, J. R. and McPherson, Bryan
Properties of Cast Iron at Elevated Temperatures (*issued as separate pamphlet ASTM STP 248*).

Katz, Morris and Sanderson, P. S.
Filtration Methods for Evaluation of Aerosol Contaminants—Summary of Proceedings of *STP 250*, 1366.

Kaufman, J. G.
Discussion, 887.

Kaufmann, K. A.
Polyethylene Environmental Stress Cracking by the Proposed Bent Strip Test Method. Published in ASTM BULLETIN, No. 233, Oct., 32.

Keith, R. E.
Discussion, 512, 709.

Keith, R. E. and Gilman, J. J.
Progress Report on Dislocation Behavior in Lithium Floride Crystals During Cyclic Loading—Summary of Proceedings of *STP 237*, 596.

Kelch, N. W. and Emme, F. E.
Effects of Type, Thickness, and Age of Capping Compounds on the Apparent Compressive Strength of Brick. Published in ASTM BULLETIN, No. 230, May, 38 (TP116).

Kelly, R. D.
Standardization from an Air Line Viewpoint. Published in ASTM BULLETIN, No. 228, Feb., 25.

Kemp, Richard H.
Advance in Static and Dynamic High Temperature Strain Gage Research—Summary of Proceedings of *STP 230*, 983.

Kennedy, Stephen J.
Testing and Engineering of Military Textiles. Published in ASTM BULLETIN, No. 232, Sept., 33 (*R*).

Kennedy, T. B.
Laboratory Testing and the Durability of Concrete—Summary of Proceedings of *STP 236*, 1361.

Kern, H. E. and Graney, E. T.
Thermionic Emission from Oxide Cathodes as Related to Glass—Summary of Proceedings of *STP 246*, 1367.

Kerstetter, D. R.
Carbon as an Indicator of Gas Content in Metallic Tube Components—Summary of Proceedings of *STP 246*, 1367.

Kesler, C. E.
See Murdock, J. W. and Kesler, C. E.

Kettles, T. L.
See Balai, N., Kettles, T. L., and Bailey, R. E.

Kies, J. A.
See Irwin, G. R., Kies, J. A., and Smith, H. L.

Kircher, J. F.
See Schall, Paul and Kircher, J. F.

Kish, J. A.
See Spangler, W. G., Howes, Jr., D. E., and Kish, J. A.

Kittel, J. H.
See Tschaeche, A. N. and Kittel, J. H.

Klein, A. and Troxell, G. E.
Studies of Calcium Sulfoaluminate Admixtures for Expansive Cements. 986. Disc., 1008.

Klier, E. P., Muvdi, B. B., and Sachs, George
The Response of High-Strength Steels in the Range of 180,000 to 300,000 psi to Hydrogen Embrittlement from Cadmium-Electroplating, 597 (*R*). Disc., 620.

Klinger, E. W. and Roediger, J. C.
Laboratory and Field Tests on Asphalt Paving Mixtures—Summary of Proceedings of *STP 240*, 1326.

Knoell, Sandra S.
See Moser, Frank and Knoell, Sandra S.

Kocataskin, F. and Swenson, E. G.
Methods for Rating Concrete Waterproofing Materials. Published in ASTM BULLETIN, No. 229, April, 67 (TP85) (*R*).

Koontz, D. E.
See Feder, D. O. and Koontz, D. E.

Koontz, D. E. and Amron, I.
An Ultrasonic System for Eliminating Physical Contaminants from Electron Devices—Summary of Proceedings of *STP 246*, 1367.

Koontz, D. E. and Sullivan, M. V.
Preparation and Use of High-Purity Intrinsic Water for Electron Device Processing—Summary of Proceedings of *STP 246*, 1367.

Koontz, D. E., Thomas, C. O., Craft, W. H., and Amron, I.
The Preparation of Ultraclean Electron-Tube Components by Chemical Etching—Summary of Proceedings of *STP 246*, 1367.

Koontz, F. H. and Owens, J. K.
Testing of Synthetic Fiber Papers—Summary of Proceedings of *STP 241*, 1363.

Krainer, Ekkehardt
See Krainer, Helmut and Krainer, Ekkehardt

Krainer, Helmut and Krainer, Ekkehardt
Influence of Geometric Factors on Results of Ultrasonic Testing of Heavy Forgings—Summary of Proceedings of *STP 231*, 984.

Kreitz, K.
The Axial Test Bore in Turbo-Generator Rotors—Summary of Proceedings of *STP 231*, 984.

Kropf, Richard T.
A Continuing and Vital Challenge—1958 President's Address, 43. Published in ASTM BULLETIN, No. 231, July, 12.

Krumin, Peter O. and Svanks, Karl
Four Methods of Determination of Carbon Dioxide in Solid Fuels. Published in ASTM BULLETIN, No. 227, Jan., 51 (TP17) (*R*).

Kuenzi, E. W. and Wood, L. W.
Durability Tests of Structural Sandwich—Summary of Proceedings of *STP 236*, 1361.

Kula, Eric
Discussion, 953.

Kura, J. G.
See Simmons, Ward F. and Kura, J. G.

Kura, J. G., and Lang, R. M.
Mechanical and Physical Properties of Three Low-Shrinkage, Copper-Base Casting Alloys, 775. Disc., 805.

Kurtz, Jr., S. S.
See Ferris, S. W., Kurtz, Jr., S. S., and Sweely, J. J.

Kusy, Paul
See Erickson, E. R., Bernsten, R. A., Hill, E. L., and Kusy, Paul

L

Lambe, T. W.
Discussion, 1268.

Landry, B. A.
An Interpretation of the Enos Coal Sampling Data as an Example of Bulk Sampling—Summary of Proceedings of *STP 242*, 1362.

Lange, E. A.
Discussion, 811.

Lang, R. M.
See Kura, J. G., and Lang, R. M.

Lankford, W. T.
Discussion, 677, 953.
See Fisher, D. H., Carlson, R. L., and Lankford, W. T.

Larsen, T. J.
See Sozen, M. A. and Larsen, T. J.

Laurence, G. C.
Irradiation Facilities in NRU—Summary of Proceedings of *STP 233*, 1358.

Lavelle, D. L.
Discussion, 805.

Lazcano, E. Rios
Investigation of a Volcanic Soil for the Construction of an Earth Dam—Summary of Proceedings of *STP 232*, 1278.

Legget, R. F. and Hutcheon, N. B.
The Durability of Buildings—Summary of Proceedings of *STP 236*, 1361.

Lessells, John M.
Discussion, 526.

Letner, H. R.
See Tarasov, L. P., Hyler, W. S., and Letner H. R.

Levinson, D. W.
Discussion, 838.

Levy, M. A.
Transfers Using Positive Displacement Meters —Summary of Proceedings of *STP 249* 1371.

Lewis, D. W. and Hubbard, Fred
Flexural and Compressive Strength Properties of Air-Entrained Concrete with Air-Cooled Blast-Furnace Slag Aggregate, 1143. Disc., 1157.

Lewis, J. R.
Discussion, 773.

Lewis, P. W.
Discussion, 1073.

Lichtman, David
Hydrogen Absorption by Tube Parts Due to Various Processing Procedures—Summary of Proceedings of *STP 246*, 1367.

Loftus, Joseph J.
See Gross, Daniel and Loftus, Joseph J.

Long, Jr., E. L.
See Bridges, W. H. and Long, Jr., E. L.

Long, Jr., E. L. and Gray, R. J.
Vibratory Polishing of Metallographic Specimens for Optical and Electron Microscopy —Summary of Proceedings of *STP 245*, 982.

Lowitz, C. W.
See Holtz, W. G. and Lowitz, C. W.

Lubahn, J. D.
Correlation of Tests Using the Congruency Principle, 678 (*R*). Disc., 683.
Hysteresis and Anelasticity in Cold-Worked Stainless Steel, 971 (*R*).
The Constant Volume Condition at Small Plastic Strains, 1327 (*R*).

Lubahn, J. D., and Yukawa, S.
Size Effects in Slow Notch-Bend Tests of a Nickel-Molybedenum-Vanadium Steel, 661 (*R*). Disc., 676.

Lucks, C. F. and Deem, H. W.
Thermal Properties of Thirteen Metals (*issued as separate pamphlet ASTM STP No. 227.*)

Luntz, H. E.
Proposed Method of Test for Dilution of Gasoline Engine Crankcase Oils. Published in Compilation of ASTM Standards on Petroleum Products and Lubricants, 1177.

Lyman, Arthur L.
Modern Liquid Fuels—Summary of Proceedings of *STP 243*, 1359.

M

Maasen, G. C.
Introduction to Symposium on Effect of Ozone on Rubber—Summary of Proceedings of *STP 229*, 1365.

Mackey, Jr., Royal V.
See Cahn, Harold L. and Mackey, Jr., Royal V.

Madsen, Donald J.
Bakelite Strain Gages for Temperatures Between −320 and 450 F—Summary of Proceedings of *STP 230*, 983.

MacDonald, J. W.
See Jones, R. T. and MacDonald, J. W.

Manabe, Toshio
Discussion, 1055.

Mantle,
Discussion, 808.

Marchetti, F. R.
See Willets, W. R. and Marchetti, F. R.

Marin, Joseph
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 52 (TP264).

Mark, Herman
Recent Advances in Polymer Research—Summary of Proceedings of *STP 243*, 1359.

Markwardt, L. J.
Discussion. Published in ASTM BULLETIN, No. 228, Feb., 42 (TP48).
Progress Report—ASTM Wood Pole Research Program. Published in ASTM BULLETIN, No. 230, May, 12.

Marsal, R. J.
Unconfined Compression and Vane Shear Tests in Volcanic Lacustrine Clays—Summary of Proceedings of *STP 232*, 1278.

Marsh, G. E.
See Brown, A. B., Sparks, J. W., and Marsh, G. E.

Marshall, Lauriston C. and Sommer, George F.
Stress-Rupture Properties of Malleable Iron at Elevated Temperatures, 733 (*R*). Disc., 751.

Martin, William I., Grossman, Sidney S., and McGovern, J. J.
Calibration Drift of Mercury Thermometers Repeatedly Cooled to −30 C. Published in ASTM BULLETIN, No. 231, July, 62 (TP150).

Martina, C. K.
High-Temperature Strain Gage Evaluator—Summary of Proceedings of *STP 230*, 983.

Mason, Warren P.
Internal Friction, Plastic Strain, and Fatigue in Metals and Semiconductors—Summary of Proceedings of *STP 237*, 596.

Mather, Bryant
Discussion, 1072.

Matlock, Hudson and Ripperger, E. A.
Measurement of Soil Pressure on a Laterally Loaded Pile, 1245 (*R*).

Mavis, F. T.
See Crum, Ralph G. and Mavis, F. T.

McBurney, J. W.
Effect of the Atmosphere on Masonry and Related Materials—Summary of Proceedings of *STP 236*, 1361.

McClintock, F. A.
Discussion, 658. Published in ASTM BULLETIN, No. 234, Dec., 52 (TP264).

McGarry, Frederick J.
See Chambers, Richard E. and McGarry, Frederick J.

McGovern, J. J.
See Martin, William I., Grossman, Sidney S., and McGovern, J. J.

McIntyre, Donald
The Accurate Determination of Molecular Weights of Macromolecules—Summary of Proceedings of *STP 247*, 1369.

McLaughlin, P. J.
See Taylor, J. T. and McLaughlin, P. J.

McNeil, R. L.
See Seed, H. F. and McNeil, R. L.

McPherson, Bryan
See Kattus, J. R. and McPherson, Bryan

McRae, J. L.
Index of Compaction Characteristics—Summary of Proceedings of *STP 239*, 1279.

Medin, A. Louis
Radioactivity and Purity Control of APPR Primary Water—Summary of Proceedings of *STP 235*, 1360.

Merz, E. H., and Colwell, R. E.
A High Shear Rate Capillary Rheometer for Polymer Melts. Published in ASTM BULLETIN, No. 232, Sept., 63 (TP211).

Merz, E. H. and Cox, W. P.
Rheology of Polymer Melts—A Correlation of Dynamic and Steady Flow Measurements—Summary of Proceedings of *STP 247*, 1369.

Metcalfe, Arthur G.
The Stability of Strain Gage Alloy Wire—Summary of Proceedings of *STP 230*, 983.

Michaels, A. I.
Turbidimetric Particle Size Distribution Theory: Application to Refractory Metal and Oxide Powders—Summary of Proceedings of *STP 234*, 1280.

Mihalisin, J. R. and Carroll, K. G.
Microstructure of Age-Hardenable Alloys—Summary of Proceedings of *STP 245*, 982.

Miklovicz, Andrew
How Hungarian Standards Are Achieved—A Brief Study—Summary of Proceedings of *STP 247*, 1369.

Mills, Jr., Blake D.
A Checking Device for Strain-Gage Indicators. Published in ASTM BULLETIN, No. 232, Sept., 62 (TP210).

Miniutti, V. P.
Bruce, H. D. and Miniutti, V. P.

Mittelman, L. L.
A Review of the API Committee on Analytical Research, Subcommittee on Measurement of Physical Properties of Cracking Catalysts—Summary of Proceedings of *STP 234*, 1280.

Moe, C. A.
Selected Etchants for Electron Microscope Studies of Magnesium Alloys—Summary of Proceedings of *STP 245*, 982.

Moeller, D. W.
See Kahn, B., Moeller, D. W., Handley, T. H., and Reynolds, S. A.

Moore, Dwight G.
Bonding Agents for High-Temperature Strain Gages—Summary of Proceedings of *STP 230*, 983.
See Pitts, J. W., Buzzard, E., and Moore, D. G.

Moore, F. L.
Metals Analysis with Thenoyltrifluoracetone—Summary of Proceedings of *STP 238*, 985.

Morrison, J. L. M.
Discussion, 968.

Morrow, JoDean
Discussion, 594.

Morrow, JoDean and Sinclair, G. M.
Cycle-Dependent Stress Relaxation—Summary of Proceedings of *STP 237*, 596.

Moser, Frank and Knoell, Sandra S.
The Effect of Loading Rate on Adhesive Strength. Published in ASTM BULLETIN, No. 227, Jan., 60 (TP26).

Moteff, John
Nuclear Radiation Effect on Copper and Copper Alloys. Report of Committee B-5 (appendix), 159.

Mrozowski, Boleslaw
Outline of Standardization Problems Relating to Plastics in Poland—Summary of Proceedings of *STP 247*, 1369.

Munter, C. J.
Test Methods for Radioactivity Hazards in Industrial Waters—Summary of Proceedings of *STP 235*, 1360.

Murdock, J. W. and Kesler, C. E.
Discussion. Published in ASTM BULLETIN, No. 229, April, 73 (TP91). Author's closure, 76 (TP94).

Murphy, Glenn
See Bohn, Jack R. and Murphy, Glenn

Musgrave, J. R.
See Harner, H. R. and Musgrave, J. R.

Muvdi, B. B.
See Klier, E. P., Muvdi, B. B. and Sachs, George

Myers, Howard
See Spurr, Robert A., Heldman, Morris, J. and Myers, Howard

Mylonas, C.
Discussion, 635, 659, 953.

N

Nelson, K. E.
Discussion, 888.

Nicolan, Edward
See Goldenberg, Niuma, Arcan, Mircea and Nicolan, Edward

Nielsen, N. A.
Introduction to Symposium on Advances in Electron Metallography—Summary of Proceedings of *STP 245*, 982.

Niemeier, B. A.
Discussion, 538.

Niemeier, Sr., B. A.
Discussion, 513.

Norton, M. R.
See Clancy, W. P. and Norton, M. R.

O

Ober, S. S. and Frederick, K. J.
A Study of the Blaine Fineness Tester. Calculation of Surface Area from Air Permeability Data—Summary of Proceedings of *STP 234*, 1280.

O'Konski, Chester T., Briton, M. D. and Higuchi, W. I.
Light Scattering Instrumentation for Particle Size Distribution Measurements—Summary of Proceedings of *STP 250*, 1366.

Olson, E. O.
Requirements for Dependable Performance of Domestic Oil Burner Nozzles—Summary of Proceedings of *STP 244*, 1364.

Olthuis, R. W.
An Ultraclean Diode as Emission Tester for Microwave Application—Summary of Proceedings of *STP 246*, 1367.

Orner, George M. and Hartbower, Carl E.
The Low-Blow Transition Temperature, 623 (*R*). Disc., 634.

Ortiz, I. Sainz
Seepage Determination on Hydraulic Structures by Means of Radioactive Isotopes—Summary of Proceedings of *STP 232*, 1278.

Ossefort, Z. T.
Ozone Resistance of Elastomeric Vulcanizates—Summary of Proceedings of *STP 229*, 1365.

Owens, J. K.
See Koontz, F. H. and Owens, J. K.

P

Painter, Robert J.
Summary (Session I). Symposium on Plastics Testing and Standardization—Summary of Proceedings of *STP 247*, 1369.

Parker, Charles F.
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 40 (TP252).

Parr, W. K.
Field Observations of the Behavior of Bituminous Pavements as Influenced by Moisture—Summary of Proceedings of *STP 240*, 1326.

Pehrson, Elmer Walter
Man and Raw Materials (Marburg lecture—synopsis). Published in ASTM BULLETIN, No. 229, April, 7 (*intended to be published as separate pamphlet*).

Penner, E.
Soil Measure Suction—Its Importance and Measurement, 1205 (*R*).

Pepper, Leonard
Discussion, 1072.

Peters, E. D.
See Daeschner, H. W., Seibert, E. E., and Peters, E. D.

Peterson, C. L. and Wagner, E. F.
How Accurate Is Hand Gaging?—Summary of Proceedings of *STP 249*, 1371.

Peterson, D. B.
See Findley, W. N., and Peterson, D. B.

Peterson, R. E.
Discussion, 513, 659.

Pickett, C. F.
Why Paint Specifications—Their Tests and Controls. Published in ASTM BULLETIN, No. 227, Jan., 70 (TP36).

Pilloton, R. L.
Convergence of Tie Lines in Ternary Liquid Systems—Application to Liquid Extraction—Summary of Proceedings of *STP 238*, 985.

Pitts, J. W., Buzzard, E. and Moore, D. G.
Resistance Measurement of Ceramic-Type Strain Gage Cements—Summary of Proceedings of *STP 230*, 983.

Plummer, H. C.
See Johnson, P. V. and Plummer, H. C.

Pocock, Bryant W. and Sommerman, Walter E.
An Analysis of Certain Mathematical Assumptions Underlying the Design and Operation of Gamma-Ray Surface Density Gages, 1345 (*R*).

Pohorilla, M. J. and Hart, W.
Oxidation of Gear Lubricants—Laboratory and Field. Published in ASTM BULLETIN, No. 234, Dec., 45 (TP257).

Polivka, Milos and Brown, Elwood H.
Influence of Various Factors on Sulfate Resistance of Concretes Containing Pozzolan, 1077 (*R*). Disc., 1099.

Pondy, P. R. and Helmke, G. E.
Measuring and Controlling Dust—Summary of Proceedings of *STP 246*, 1367.

Potts, W. J.
The Use of Infrared Spectroscopy in Characterization of Polymer Structure—Summary of Proceedings of *STP 247*, 1369.

Preston, Oliver
Discussion, 760.

Price, Walter H.
Discussion, 1008.

Pritchett, P. P.
The Utilization of Pure Water in Electronic Device Manufacture—Summary of Proceedings of *STP 246*, 1367.

Proudley, C. E.
Introduction to Symposium on Effect of Water on Bituminous Paving Mixtures—Summary of Proceedings of *STP 240*, 1326.

Pryer, Robert W. J. and Woods, K. B.
Investigation of Banded Sediments along St. Lawrence North Shore in Quebec—Summary of Proceedings of *STP 239*, 1279.

R

Randall, P. N.
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 52 (TP264).

Rankin, A. W.
Requirements for Turbine and Generator Forgings—Summary of Proceedings of *STP 231*, 984.

Raphael, J. M.
See Troxell, G. E., Raphael, J. M. and Davis, R. E.

Ray, W. E., Anderson, W. K. and Dunning, D. N.
Radiation Damage Effects on Reactor Control Materials—Summary of Proceedings of *STP 233*, 1358.

Rebholz, M. J.
See Wolford, Don S. and Rebholz, M. J.

Reid, D. L.
Analysis of Environmental Samples for Radionuclides—Summary of Proceedings of *STP 235*, 1360.

Reinhart, F. W.
Discussion, 856.
Relation Between Actual and Artificial Weathering—Summary of Proceedings of *STP 236*, 1361.

Reinsmith, Gerald
Nuclear Radiation Effects on Materials—Review of Basic Principles and Summary of Current Knowledge. Published in ASTM BULLETIN, No. 232, Sept., 37 (TP185) (*R*).

Reynolds, L. H.
An Extensometer for Testing High-Explosive Materials. Published in ASTM BULLETIN, No. 234, Dec., 65 (TP277).

Reynolds, S. A.
See Kahn, B., Moeller, D. W., Handley, T. H., and Reynolds, S. A.

Rhodes, C. C., Janson, M. H. and Brown, M. G.
Reflectance Tests for Concrete Curing Materials, 1059. Disc., 1072.

Rice, J. M.
Relationship of Aggregate Characteristics to the Effect of Water on Bituminous Paving Mixtures—Summary of Proceedings of *STP 240*, 1326.

Rice, L. A.
Discussion, 805.

Richards, Cedric W.
Effect of Size on the Yielding of Mild Steel Beams, 955. Disc., 967.

Ripling, E. J.
Toughening High-Strength Steel by Warm Working, 943 (*R*). Disc., 953.

Ripperger, E. A.
See Matlock, Hudson and Ripperger, E. A.

Roberts, J. E. and De Souza, J. M.
The Compressibility of Sands, 1269 (*R*).

Robinson, Jr., George D.
Application, Installation and Maintenance of Automatic Tank Gages—Summary of Proceedings of *STP 249*, 1371.

Roediger, J. C.
See Klinger, E. W. and Roediger, J. C.

Rogen, Neil E. and Grant, Nicholas J.
Aging Characteristics of Nickel-Chromium Alloys Containing Appreciable Amounts of Titanium and Aluminum, 697. Disc., 709.

Rogers, Lewis H.
Relative Merits of Gas Chromatography, Colorimetry, and Spectrometry for Air Pollution Measurements—Summary of Proceedings of *STP 250*, 1366.

Roth, F. L. and Stiehler, R. D.
Tension Testing of Rubber Rings. Published in ASTM BULLETIN, No. 233, Oct., 38 (TP220).

Ruh, Ernest L. and Conklin, George E.
Thermal Stability of Glasses in ASTM Thermometers. Published in ASTM BULLETIN, No. 233, Oct., 35 (TP217).

Rubin, Melvin R.
See Gray, Edward I., Grossman, Arthur and Rubin, Melvin R.

Rúiz, Alvaro López
Effect of Calcination Temperature on Heat of Solution of Clays. Published in ASTM BULLETIN, No. 233, Oct., 51 (TP233).

Ruzicka, Jerome E.
Discussion, 891.

S

Sachs, George
See Klier, E. P., Muvdi, B. B., and Sachs, George

Sanderson, P. S.
See Katz, Morris and Sanderson, P. S.

Sauer, R. W.
See Dunn, Jr., F. R. and Sauer, R. W.

Schaefer, A. O.
The Work of the Task Group on Brittle Failure with Respect to Research—Summary of Proceedings of *STP 231*, 984.

Schall, Paul and Kircher, J. F.
Dosimetry Techniques for Gamma and Reactor Radiation Fields—Summary of Proceedings of *STP 233*, 1358.

Schiffman, Robert L. and Wilson, Charles R.
The Mechanical Behavior of Chemically Treated Granular Soils, 1218 (*R*).

Schrier, B. H. and Wolper, P. K.
Relative Humidity Measurements in Package Materials Testing—Summary of Proceedings of *STP 241*, 1363.

Schulte, W. C.
See Cummings, H. N., Stulen, F. B. and Schulte, W. C.

Schwartz, F. C.
See Ward, C. C. and Schwartz, F. C.

Seale, C. L.
See Breindel, W. W., Seale, C. L., and Carlson, R. L.

Seamon, J. M.
Summation to Symposium on Radioactivity in Industrial Water and Industrial Waste Water—Summary of Proceedings of *STP 235*, 1360.

Seed, H. B.
Introduction to Symposium on Application of Soil Testing in Highway Design and Construction—Summary of Proceedings of *STP 239*, 1279.

Seed, H. F. and McNeill, R. L.
Soil Deformations under Repeated Stress Applications—Summary of Proceedings of *STP 232*, 1278.

Seibert, E. E.
See Daeschner, H. W., Seibert, E. E., and Peters, E. D.

Senarclens, de G.
Encyclopedia of Electrical Insulating Materials—Summary of Proceedings of *STP 247*, 1369.

Sereda, P. J.
Measurement of Surface Moisture—A Progress Report. Published in ASTM BULLETIN, No. 228, Feb., 53 (TP59).

Setter, L. R., Hagee, G. R. and Straub, C. P.

Analysis of Radioactivity in Surface Waters—Practical Laboratory Methods. Published in ASTM BULLETIN, No. 227, Jan., 35 (TP1) (*R*).

See also Summary of Proceedings of *STP 235*, 1360.

Shahinian, Paul and Achter, M. R.

The Effect of Atmosphere on Creep-Rupture Properties of a Nickel-Chromium-Aluminum Alloy, 761. Disc., 773.

Shaver, W. W.

Recent Developments in Glass Research—Summary of Proceedings of *STP 243*, 1359.

Shea, J. E.

Specific Gravity of Montmorillonite Clay Constituents, 1260. Disc., 1268.

Shelburne, V. B.

See Bingham, Jr., R. S., Gioele, J. L., and Shelburne, V. B.

Sheps, Neta P.

Power Separation Filter for Corona Testing. Published in ASTM BULLETIN, No. 230, May, 30 (TP108).

Shrager, Jack J.

Evaluation of Several Gage Configurations Fabricated with Armour Alloy "D"—Summary of Proceedings of *STP 230*, 983.

Shuman, E. C.

Introduction and Closing Comments to Symposium on Some Approaches to Durability in Structures—Summary of Proceedings of *STP 236*, 1361.

Shupe, J. W. and Goetz, W. H.

A Laboratory Method for Determining the Skidding Resistance of Bituminous Paving Mixtures, 1282.

Shurig, D. G. and Yoder, E. J.

Experience with Core Drilling Machines, Power Augers, and Electrical Resistivity on the Pennsylvania Turnpike—Summary of Proceedings of *STP 239*, 1279.

Sigler, H.

See Strella, S., Sigler, H., Chmura, M., and Holman, B.

Silliman, M. A.

See Bailey, R. E. and Silliman, M. A.

Simmons, Ward F.

Discussion, 811. Published in ASTM BULLETIN, No. 229, April, 65 (TP83).

Simmons, Ward F. and Cross, Howard C.

Report on Elevated-Temperature Properties of Chromium Steels (12–27 per cent) (ASTM-ASME Joint Committee on Effect of Temperature on the Properties of Metals) (*issued as separate publication ASTM STP 228*).

Simmons, Ward F. and Kura, J. G.

The Creep Properties of Three Low-Shrinkage, Copper-Base Casting Alloys, 791. Disc., 805.

Sims, H. E.

Automatic Tank Gage Performance—Summary of Proceedings of *STP 249*, 1371.

Sinclair, G. M.

See Morrow, JoDean and Sinclair, G. M.

Skinner, E. N.

Discussion, 773.

Slade, Jr., J. J.

Sinusoidal Surface Waves in Stratified Soils—Summary of Proceedings of *STP 232*, 1278.

Slater, Morris N. and Donahue, D. Joseph

Radiotracers in Evaluating Parts Cleaning—Summary of Proceedings of *STP 246*, 1367.

Slichter, William P.

Nuclear Resonance Studies of Polymer Chain Flexibility—Summary of Proceedings of *STP 247*, 1369.

Smith, Clarence

Discussion, 677.

Smith, E.

See Boswell, F. W. C. and Smith, E.

Smith, H. M.

Composition of Petroleum Oils. Published in ASTM BULLETIN, No. 231, July, 55.

Smith, H. L.

See Irwin, G. R., Kies, J. A., and Smith, H. L.

Smith, Karl F.

Irradiation of Uranium-Fissium Alloys and Related Compositions—Summary of Proceedings of *STP 233*, 1358.

Snyder, A. William

See Colp, John L. and Snyder, A. William

Sommer, George F.

See Marshall, Lauriston C. and Sommer, George F.

Sommerman, Walter E.

See Pocock, Bryant W. and Sommerman, Walter E.

Sozen, M. A. and Larsen, T. J.

Discussion. Published in ASTM BULLETIN, No. 229, April, 73 (TP91).

Spangler, W. G., Howes, Jr., D. E. and Kish, J. A.
Applications of Ion-Exchange Chromatography to the Analysis of Commercial Triphosphate. Published in ASTM BULLETIN, No. 228, Feb., 71 (TP67) (*R*).

Sparks, J. W.
See Brown, A. B., Sparks, J. W., and Marsh, G. E.

Sparlin, Richard F.
Effect of Ultraviolet Light on Viscosity of Thin Films of Asphalt Cements, 1316 (*R*).

Spencer, J. W.
See Ballantyne, E. R. and Spencer, J. W.

Spurr, Robert A., Heldman, Morris J. and Myers, Howard
The Elastometer—A Simple Device for Measurement of Elastic Moduli of Plastics at Elevated Temperatures. Published in ASTM BULLETIN, No. 231, July, 65 (TP 153).

Statton, W. O.
The Use of X-ray Diffraction and Scattering in Characterization of Polymer Structure—Summary of Proceedings of *STP 247*, 1369.

Stephenson, C. E. and Willbourn, A. H.
The Vicat Softening Point Test Method: Correlations, Uses and Variants—Summary of Proceedings of *STP 247*, 1369.

Stephenson, D. G.
Discussion. Published in ASTM BULLETIN, No. 228, Feb., 67 (TP73).

Stern, Herman H. and Donahue, D. Joseph
The Adsorption and Desorption Characteristics of Conductive Graphite Coatings—Summary of Proceedings of *STP 246*, 1367.

Stevenson, Earl P.
Tailoring the Properties of Materials—Summary of Proceedings of *STP 243*, 1359.

Stewart, Robert J.
Elevated Temperature Strain-Gage Investigations at Grumman Aircraft Engineering Corporation—Summary of Proceedings of *STP 230*, 983.

Stiehler, R. D.
See Roth, F. L. and Stiehler, R. D.

St. John, Gilbert A.
See Thomas, Moyer D., St. John, Gilbert A., and Chaikin, Saul W.

Straub, C. P.
See Setter, L. R., Hagee, G. R., and Straub, C. P.

Streicher, Michael A.
Intergranular Corrosion Resistance of Austenitic Stainless Steels—A Ferric Sulfate-Sulfuric Acid Test. Published in ASTM BULLETIN, No. 229, April, 77 (TP95) (*R*).

Strella, S., Sigler, H., Chmura, M., and Holman, B.
A High-Speed Tension Testing Machine. Published in ASTM BULLETIN, No. 228, Feb., 50 (TP56).

Stremba, H. J.
Technical Societies Speed Nuclear Progress—A Survey Describing Some of the Activities of Technical Societies in the Field of Nuclear Energy. Published in ASTM BULLETIN, No. 231, July, 46.

Stren, Jr., F. B.
Ceramic Coatings for Experimental Stress Analysis—Summary of Proceedings of *STP 230*, 983.

Streu, W.
Underpining and Straightening of an Eleven-Story Building in Mexico City—Summary of Proceedings of *STP 232*, 1278.

Striker, L.
See Wilkinson, C. E., Striker, L., and Traxler, R. N.

Stulen, F. B.
Discussion, 551.
See Cummings, H. N., Stulen, F. B., and Schulte, W. C.

Sullivan, M. V.
See Koontz, D. E. and Sullivan, M. V.

Sullivan, W. F. and Jacobsen, A. E.
Sedimentation Procedures for Determining Particle Size Distribution—Summary of Proceedings of *STP 234*, 1280.

Svanks, Karl
See Krumin, Peter O. and Svanks, Karl

Swayze, Myron A.
A Comparison of Cement Strengths in Mortars and Concretes. Published in ASTM BULLETIN, No. 232, Sept., 54 (TP202).
Discussion, 1035, 1050, 1099.

Sweely, J. J.
See Ferris, S. W., Kurtz, Jr., S. S., and Sweely, J. J.

Swenson, E. G.
See Kocataskin, F. and Swenson, E. G.

T

Tamez, E.
Some Factors Affecting the Dynamic Compaction Test—Summary of Proceedings of *STP 232*, 1278.

Tarasov, L. P.
See Hyler, W. S., Tarasov, L. P., and Favor, R. J.

Tarasov, L. P., Hyler, W. S. and Letner, H. R.
Effects of Grinding Direction and of Abrasive Tumbling on the Fatigue Limit of Hardened Steel, 528. Disc., 538.

Tash, J. A.
See Whirl, S. F. and Tash, J. A.

Tate, Douglas R.
See Bouche, Raymond R. and Tate, Douglas R.

Taylor, J. T. and McLaughlin, P. J.
Nonwoven Fabrics and Synthetic Fiber Papers: Technology and End Uses—Summary of Proceedings of *STP 241*, 1363.

Thomas, B. D.
Trends and Outlook for Technological Progress from the Standpoint of the Research Scientist. Published in ASTM BULLETIN, No. 228, Feb., 70 (TP76).

Thomas, C. O.
See Koontz, D. E., Thomas, C. O., Craft, W. H., and Amron, I.

Thomas, Moyer D., St. John, Gilbert A. and Chaikin, Saul W.
The SRI Fluoride Recorder—Summary of Proceedings of *STP 250*, 1366.

Thompson, Gordon V.
See Brown, M. John and Thompson, Gordon V.

Thompson, R. D.
Centigrade or Celsius. Published in ASTM BULLETIN, No. 230, May, 10.

Thum, E. E.
Discussion, 858.

Thuman, W. C.
See Cadle, R. D. and Thuman, W. C.

Torrey, M. N., Gohn, G. R. and Wilk, M. B.
A Study of the Variability in the Mechanical Properties of Alloy A Phosphor Bronze Strip, 893. Disc., 910.

Trapp, W. J.
Discussion, 514.

Traxler, R. N.
See Wilkinson, C. E., Striker, L., and Traxler, R. N.

Trout, Delmar E.
Mechanical and Physical Characteristics of Jewelry Bronze, 87.5 per cent Strip. Published in ASTM BULLETIN, No. 227, Jan., 45 (TP11).

Troxell, G. E.
See Klein, A. and Troxell, G. E.

Troxell, G. E., Raphael, J. M., and Davis R. E.
Long-Time Creep and Shrinkage Tests of Plain and Reinforced Concrete, 1101.

Tschaeche, A. N. and Kittel, J. H.
Introduction to Symposium on Radiation Effect on Materials—Vol. 3—Summary of Proceedings of *STP 233*, 1358.

Tucker, Harold
The Reaction of Oxone with Rubber—Summary of Proceedings of *STP 229*, 1365.

Turnbull, W. J. and Foster, C. R.
Effect of Tire Pressures and Lift Thicknesses on Compaction of Soil with Rubber-Tired Rollers—Summary of Proceedings of *STP 232*, 1278.

Turner, S.
See Bestelink, P. N. and Turner, S.

Twiss, S. B. and Clougherty, L. B.
A Disk Shear Test for Adhesives. Published in ASTM BULLETIN, No. 232, Sept., 57 (TP205).

V

Vacca, G. N.
Comparison of Accelerated and Natural Tests for Ozone Resistance of Elastomers—Summary of Proceedings of *STP 229*, 1365.

Vanick, J. S.
Discussion, 806.

Van Zelst, T. W.
New Developments in Soil Sampling and Rock Coring Equipment—Summary of Proceedings of *STP 232*, 1278.

Veeder, Nicholas P.
ASTM and the Steel Industry—Two Case Histories. Published in ASTM BULLETIN, No. 231, July, 57.

Veith, A. G.
Quantitative Measurement of Rate of Ozone Cracking—Summary of Proceedings of *STP 229*, 1365.
Report on Interlaboratory Ozone Test Program (ASTM Committee D-11, Subcommittee XV) 1957—Summary of Proceedings of *STP 229*, 1365.

Vellines, R. P.
See Hansen, W. C., Vellines, R. P. and Brandvold, W. W.

Vitovec, F. H.
Effect of Static Prestrain on the Fatigue Properties Under Uniformly Increasing Stress Amplitude, 552 (*R*).

Volpe, John A.
Inventions, Science, and Research in the Highway Program. Published in ASTM BULLETIN, No. 234, Dec., 7.

von Meysenbug, C. M.
Testing Flow Properties of Thermosetting and Thermoplastic—Summary of Proceedings of *STP 247*, 1369.

W

Waddell, Joseph J.
Testing of Prestressing Materials and Concrete Control on the Northern Illinois Toll Highway. Published in ASTM BULLETIN, No. 234, Dec., 35 (TP247). Disc., 40 (TP 252).

Wagner, E. F.
See Peterson, C. L. and Wagner, E. F.

Wagner, Walter K.
Discussion, 1037.

Wakeman, C. M.
Discussion, 1099.

Walker, J.
See Walter, F., Evans, R. R., Walker, J., and Askevold, R. J.

Walker, Stanton
Discussion, 1054, 1157.

Walker, Stanton and Bloem, Delmar L.
Variations in Portland Cement, 1009. Disc., 1033.

Walter, F., Evans, R. R., Walker, J. and Askevold, R. J.
A Laboratory Waxing Machine. Published in ASTM BULLETIN, No. 227, Jan., 58 (TP24).

Ward, C. C. and Schwartz, F. C.
Distillate Fuel Incompatibility—Summary of Proceedings of *STP 244*, 1364.

Warren, Donald
Nitric-Hydrofluoric Acid Evaluation Test for Type 316L Stainless Steel. Published in ASTM BULLETIN, No. 230, May, 45 (TP123) (*R*).

Warrington, H. G.
Discussion, 840, 887.

Weaver, V. P.
Discussion, 805.

Webber, A. C.
Brittleness Temperature Testing of Elastomers and Plastics. Published in ASTM BULLETIN, No. 227, Jan., 40 (TP6) (*R*).

Wegener, A. F. and Burrill, E. A.
A Preliminary Study of Remote Fluoroscopy in the 2-Mev Range. Published in ASTM BULLETIN, No. 232, Sept., 48 (TP196) (*R*).

Weinberg, J. G.
See Bennett, J. A. and Weinberg, J. G.

Weiss, D. E.
Introduction to Symposium on Elevated Temperature Strain Gages—Summary of Proceedings of *STP 230*, 983.

Weissmann, G. F. and Babington, W.
A High Damping Magnesium Alloy for Missile Applications, 869. Disc., 887.

Werner, George
The Effect of Type of Capping Material on the Compressive Strength of Concrete Cylinders, 1166 (*R*). Disc., 1181.

Weston, G. and Glass, H. M.
British Standards with Particular Reference to Standards for the Plastics Industry—Summary of Proceedings of *STP 247*, 1369.

Whirl, S. F. and Tash, J. A.
Radioactive Waste Processing Control, Shippingport Atomic Power Station—Summary of Proceedings of *STP 235*, 1360.

Whitby, K. T.
The Mechanics of Fine Sieving—Summary of Proceedings of *STP 234*, 1280.

Whitby, K. T., Algren, A. B., and Annis, J. C.
Centrifuge Sedimentation Size Analysis of Membrane Filter Collected Samples of Airborne Dusts—Summary of Proceedings of *STP 234*, 1280.

White, J. C.
The Use of Tri-*n*-Octylphosphine Oxide in Analytical Chemistry—Summary of Proceedings of *STP 238*, 985.

Whitman, R. V.
Testing Soils for Transient Loads—Summary of Proceedings of *STP 232*, 1278.

Wijbrans, F. W. R.
Standardization in The Netherlands—Summary of Proceedings of *STP 247*, 1369.

Wilk, M. B.
See Torrey, M. N., Gohn, G. R., and Wilk, M. B.

Wilkinson, C. E., Striker, L. and Traxler, R. N.
Criterion for the Evaluation of Roof Coating Asphalts. Published in ASTM BULLETIN, No. 230, May, 42 (TP120).

Wilkinson, L. E.
See Hayward, B. R., Wilkinson, L. E. and Woolsey, C. C.

Willbourn, A. H.
See Stephenson, C. E. and Willbourn, A. H.

Willets, W. R. and Marchetti, F. R.
Some Historical Developments in Paper Testing—Summary of Proceedings of *STP 241*, 1363.

Williams, Clyde
High Temperature Metals—Their Role in the Technological Future (Gillett lecture—synopsis). Published in ASTM BULLETIN, No. 229, April, 7 (*published as separate pamphlet*).
Services That Enrich. Published in ASTM BULLETIN, No. 230, May, 60 (TP138).

Williams, I. V.
Discussion, 888.

Willis, H. W.
Discussion. Published in ASTM BULLETIN, No. 234, Dec., 40 (TP252).

Wilsdorf, H. G. F.
A Study of Dislocations in Thin Aluminum Foils Elongated in the Electron Microscope—Summary of Proceedings of *STP 245*, 982.

Wilson, Charles R.
See Schiffman, Robert L. and Wilson, Charles R.

Wolford, Don S. and Rebholz. M. J.
Beam and Column Tests of Welded Steel Tubing with Design Recommendations. Published in ASTM BULLETIN, No. 233, Oct., 45 (TP227) (*R*).

Wolper, P. K.
See Schrier, B. H. and Wolper, P. K.

Wood, L. W.
See Kuenzi, E. W. and Wood, L. W.

Wood, W. A.
Recent Observations in Fatigue Failure in Metals—Summary of Proceedings of *STP 237*, 596.

Woodall, H. N.
See Colp, John L. and Woodall, H. N.

Woods, K. B.
See Pryer, Robert W. J. and Woods, K. B.

Woolsey, C. C.
See Hayward, B. R., Wilkinson, L. E., and Woolsey, C. C.

Work, L. T.
Introduction to Symposium on Particle Size Measurement—Summary of Proceedings of *STP 234*, 1280.

Wycoff, John C.
Suitability of Light-Weight Aggregate for Bituminous Plant Mix. Published in ASTM BULLETIN, No. 235, Jan., 1959, 33 (TP1). Disc., 36 (TP6).

Y

Yanowitz, Herbert, Berman, Irwin, and Bleiweis, Alfred
Investigation of Strain Gages for Long-Time Static Testing to 650 F—Summary of Proceedings of *STP 230*, 983.

Yoder, E. J.
See Shurig, D. G. and Yoder, E. J.

Yokobori, T.
Fatigue Damage of Plain Carbon Steels—Effect of Reheating. Published in ASTM BULLETIN, No. 234, Dec., 66 (TP278).

Younger, Jr., D. G.
A Fatigue Failure Hypothesis Based Upon Stabilized Unidirectional Slip, 576 (*R*). Disc., 594.

Yukawa, S.
See Lubahn, J. D., and Yukawa, S.

Z

Zaustin, M. V.
Discussion. Published in ASTM BULLETIN, No. 231, July, 64 (TP152). Author's closure, 65 (TP153).

Zeevaert, L.
Consolidation of Mexico City Volcanic Clay—Summary of Proceedings of *STP 232*, 1278.

Zoldners, N. G.
Discussion. Published in ASTM BULLETIN, No. 229, April, 73 (TP91).

SUBJECT INDEX

VOLUME 58

A

Absorption Spectroscopy
  Report of Committee E-13, 470.
  Report of Committee E-13 (appendix), 472.
Acoustical Materials
  Report of Committee C-20, 285.
Additives
  anti-stripping for bituminous materials (Critz). Summary of Proceedings of *STP 240*, 1326.
Adhesion
    factors influencing, organic coatings to chromium-plated surfaces
      Report of Subcommittee V (section F) of Committee B-8 (appendix), 221.
Adhesives
  Report of Committee D-14, 379.
  strength properties
    in metals
      effect of loading rate (Moser and Knoell). Published in ASTM BULLETIN, No. 227, Jan., 60 (TP26).
      shear test, disk (Twiss and Clougherty). Published in ASTM BULLETIN, No. 232, Sept., 57 (TP205).
Aggregates
  lightweight
    for bituminous plant mix (Wycoff). Published in ASTM BULLETIN, No. 235, Jan., 1959, 33 (TP3).
  Report of Committee C-9, 263.
  stripping of asphalt (Brown, Sparks, and Marsh). Summary of Proceedings of *STP 240*, 1326.
Aging characteristics
  nickel-chromium-titanium-aluminum alloys (Roger and Grant), 697. Disc., 709.
Air Transportation Industry
  standardization (Kelly). Published in ASTM BULLETIN, No. 228, Feb., 25.
Alloys
  aluminum-aluminum oxide (M257 and SAP)
    temperature and time stability (Cremens, Bryan, and Grant), 753. Disc., 760.
  aluminum SG100A and G8A
    Report of Subcommittee V of Committee B-6 (appendix), 167.
  copper
    effect of nuclear radiation (Moteff). Report of Committee B-5 (appendix), 159.
    recommendations affecting Standards
      Report of Committee B-5 (appendix), 144.
  copper and aluminum
    constant volume at small plastic strains in tension testing (Lubahn), 1327 (*R*).
  copper-base casting, low shrinkage
    mechanical and physical properties (Kura and Lang), 775. Disc., 805.
  copper-zinc
    jewelry bronze, 87.5 per cent strip (Trout). Published in ASTM BULLETIN, No. 227, Jan., 45 (TP11).
  electron metallography
    microscope study
      Symposium on Advances in Electron Metallography. Summary of Proceedings of *STP 245*, 982:
        age-hardenable, microstructure of (Mihalisin and Carroll).
        heat-resistant, study of minor phases (Bigelow, Brockway, and Freeman).
        nickel-base, precipitation-hardening process (Bigelow, Amy, Corey, and Freeman).
        magnesium, selected etchants (Moe).
        titanium with 8 per cent mangenese (Progress Report Non-Ferrous Task Group, Subcommittee XI of ASTM Committee E-4).
  grade A phosphor bronze strip
    study of mechanical properties (Torrey, Gohn, and Wilk), 893. Disc., 910.
  high temperature
    evaluation under combined static and dynamic stresses (Hawkes and Ek). Published in ASTM BULLETIN, No. 235, Jan., 1959, 46 (TP 16).
  magnesium
    elevated temperature
      effects of exposure times on creep resistance (Clapper), 812.
    high temperature and strain rate effect (Fenn and Gusack), 685.
    of high damping capacity
      for missile applications (Weissman and Babington), 869. Disc., 887.
    Young's modulus as function of temperature and metallurgical variables (Fenn, Jr.), 826 (*R*). Disc., 838.
  nickel
    Report of Committee B-2, 133.
  nickel-Al_2O_3
    high temperature properties (Cremens and Grant), 714 (*R*). Disc., 731.
  nickel-chromium-aluminum
    atmospheric effect on creep-rupture properties (Shahinian and Achter), 761. Disc., 773.
  nickel-chromium-titanium-aluminum
    aging characteristics (Rogen and Grant), 697. Disc., 709.

steel
aluminum and titanium
tensile impact test (Crum and Mavis). Published in ASTM BULLETIN, No. 231, July, 88 (TP176).
Report of Committee A-6, 121.
uranium-fissium
irradiation of (Smith). Summary of Proceedings of *STP 233*, 1358.
Aluminum
Report of Committee B-1, 128.
Report of Committee B-6, 165.
See also Alloys.
Anisotropy
of plastics (Hogberg). Summary of Proceedings of *STP 247*, 1369.
Annual Meeting
Report of Board of Directors, 47, 52.
Summary of Proceedings of Sixty-first Annual Meeting, 1.
Apparatus
See Testing Machines.
Appearance
Report of Committee E-12, 468.
Aromatic Hydrocarbons
Report of Committee D-16, 386.
Asphalt
durability
effect of ultraviolet light (Sparlin), 1316 (*R*).
paving mixtures
laboratory and field tests (Klinger and Roediger). Summary of Proceedings of *STP 240*, 1326.
Report of Committee D-4, 317.
Report of Committee D-8, 341.
roof coating (Wilkinson, Striker, and Traxler). Published in ASTM BULLETIN, No. 230, May, 42 (TP120).
stripping from aggregate (Brown, Sparks, and Marsh). Summary of Proceedings of *STP 240*, 1326.
ASTM and
continuing challenge for materials (President's address) (Kropf). Published in ASTM BULLETIN, No. 231, July, 12.
cooperative research (Sisco). Published in ASTM BULLETIN, No. 234, Dec., 16.
refining industry (Ferguson). Published in ASTM BULLETIN, No. 230, May, 24.
steel industry (Veeder). Published in ASTM BULLETIN, No. 231, July, 57.
Atmospheric Analysis
instrumentation
Symposium. Summary of Proceedings of *STP 250*, 1366:
filtration methods
for aerosol contaminants (Katz and Sanderson).
light scattering
for particle size distribution measurements (O'Konski, Briton, and Higuchi).
pollution measurements
by gas chromatography, colorimetry and spectrometry (Rogers).
SRI fluoride recorder (Thomas, St. John, and Chaikin).
Atmospheric Corrosion
Report of Committee B-7, 173.
Atmospheric Exposure
aluminum and magnesium sand and permanent mold castings (Adam and Dougherty). Report of Committee B-7 (appendix), 194.
Report of Committee A-5, 116.
Atmospheric Sampling
Report of Committee D-22, 424.
Atomic Industry
progress in nuclear field in 1957. Published in ASTM BULLETIN, No. 228, Feb., 21.
Awards. Published in ASTM BULLETIN, No. 227, Jan., 19, 28; No. 228, Feb., 14; No. 230, May 5, 22; No. 231, July, 26, 30, 43, 44; No. 232, Sept., 33; No. 233, Oct., 16; No. 234, Dec., 18, 21.
Harold De Witt Smith, address (Kennedy). Published in ASTM BULLETIN, No. 232, Sept., 33.

B

Bakelite
strain gages
for temperature between −320 and 450 F (Madsen). Summary of Proceedings of *STP 230*, 983.
Bearing Ratio
California and Iowa value
correlation (Davidson, Katti, Kallman, and Gurland). Summary of Proceedings of *STP 232*, 1278.
Bituminous Materials
anti-stripping additives (Critz). Summary of Proceedings of *STP 240*, 1326.
plant mix
lightweight aggregate for (Wycoff). Published in ASTM BULLETIN, No. 235, Jan., 1959, 33 (TP3).
Report of Committee D-4, 317.
Report of Committee D-8, 341.
See also Bituminous Paving Mixtures.
Bituminous Paving Mixtures
effect of water on
Symposium. Summary of Proceedings of *STP 240*, 1326:
anti-stripping additives for bituminous materials laboratory study (Critz).
asphalt paving mixtures
laboratory and field tests (Klinger and Roediger).
field observations of behavior (Parr).
introduction (Proudley).
relationship of aggregate characteristics (Rice).
stripping of asphalt from aggregate (Brown, Sparks, and Marsh).
testing for resistance (Goetz).
skidding resistance
determined by laboratory method (Shupe and Goetz), 1282.
See also Highway Construction.
Bituminous Roof Surfaces
temperatures (Ballantyne and Spencer). Disc. Published in ASTM BULLETIN, No. 228, Feb., 67 (TP73).

Board of Directors
Auditor's Report (appendix I), 65.
Report of Administrative Committee on District Activities (appendix IV), 89.
Report of Admistrative Committee on Papers and Publications (appendix III), 85.
Report of Administrative Committee on Research (appendix V), 91.
Report of Administrative Committee on Simulated Service Testing (appendix VI), 93.
Report of Administrative Committee on Standards (appendix II), 79.
Report of Board of Directors, 47.
Boiler Feedwater
Report of Committee D-19, 399.
Brass
Report of Committee B-5, 141.
Report of Committee B-6, 165.
Brick
effect of variations of cappings on compressive strength (Kelch and Emme). Published in ASTM BULLETIN, No. 230, May, 38 (TP 116).
Report of Committee C-15, 275.
Brittleness Temperature
elastomers and plastics (Webber). Published in ASTM BULLETIN, No. 227, Jan., 40 (TP6) (*R*).
Bronze
grade A phosphor strip
study of mechanical properties (Torrey, Gohn, and Wilk), 893. Disc., 910.
jewelry copper-zinc alloy, 87.5 per cent strip (Trout). Published in ASTM BULLETIN, No. 227, Jan., 45 (TP11).
Building Constructions
eleven-story in Mexico City
underpinning and straightening (Streu). Summary of Proceedings of *STP 232*, 1278.
Report of Committee E-6, 461.
Building Materials
durability in structures
Symposium on Some Approaches to Durability in Structures. Summary of Proceedings of *STP 236*, 1361:
buildings (Legget and Hutcheon).
concrete
laboratory testing (Kennedy).
introduction and closing comments (Shuman).
masonry
effect of the atmosphere (McBurney).
factors affecting clay products (Johnson and Plummer).
sandwich construction (Kuenzi and Wood).
weathering
relation between actual and artificial (Reinhart).
surface flammability
flame spread properties of finish (Gross and Loftus). Published in ASTM BULLETIN, No. 230, May, 56 (TP134).
measuring by small tunnel-furnace test (Bruce and Miniutti). Published in ASTM Bulletin, No. 230, May, 61 (TP 139).
Building Stone
Report of Committee C-18, 281.
Bulk Sampling
Symposium. Summary of Proceedings of *STP 242*, 1362:
accuracy
effect of increment weight (Bertholf).
error considerations
with reference to fertilizer (Duncan).
example of
interpretation of Enos coal data (Landry).
purposes (Deming).
variation
in ore car and abrasive grain (Bingham, Jr.).

C

Cables
Report of Committee B-1, 128.
Carbon Black
Report of Committee D-24, 428.
Casein
Report of Committee D-25, 429.
Cast Iron
at elevated temperatures
properties of (Kattus and McPherson) (*issued as separate pamphlet ASTM STP 248.*)
Report of Committee A-3, 112.
Cathodes
Report of Committee F-1, 495.
Caustic Soda
Report of Subcommittee X of Committee E-2 (appendix), 446.
Cellulose
Report of Committee D-23, 426.
Cement
density in water
by pycnometer method (Ford). Published in ASTM BULLETIN, No. 231, July, 81 (TP169).
expansive
analyses of calcium sulfoaluminate admixtures (Klein and Troxell), 986. Disc., 1008.
hydraulic
types I portland, IS portland-blast-furnace slag for water tanks and pipe lines (Hansen). Published in ASTM BULLETIN, No. 232, Sept., 51 (TP199).
oxychloride, magnesium
Report of Committee C-2, 251.
oxysulfate, magnesium
Report of Committee C-2, 251.
portland
and portland-slag
insoluble residue determination (Halstead and Chaiken). Published in ASTM BULLETIN, No. 229, April, 60 (TP78).
effect of fine aggregate (other than grading) on strength and durability of mortar (Dempsey), 1121. Disc., 1135.
false set upon aeration (Hansen), 1044 (*R*). Disc., 1050.

of C_3A content (with and without pozzolan) effect on sulfate resistance of concrete (Polivka and Brown), 1077 (*R*). Disc., 1099.
variation in (Walker and Bloem), 1009. Disc., 1033.
reference laboratory
extended to concrete. Published in ASTM BULLETIN, No. 228, Feb., 16.
Report of Committee C-1, 243.
Report of Committee C-16, 278.
Report of Subcommittee on Cement Reference Laboratory, 243.
strengths
in mortar and concretes (Swayze). Published in ASTM BULLETIN, No. 232, Sept., 54 (TP202).
successive determination of manganese, sodium and potassium by flame photometry (Ford). Published in ASTM BULLETIN, No. 233, Oct., 57 (TP239).
Cemented Carbides
Report of Committee B-9, 223.
Cement Reference Laboratory
Report of Subcommittee on Cement Reference Laboratory, 243.
Ceramics
coatings
for experimental stress analysis (Stren, Jr.). Summary of Proceedings of *STP 230*, 983.
Report of Committee C-22, 289.
Report of Committee F-1, 495.
strain-gage cements
resistance measurement (Pitts, Buzzard, and Moore). Summary of Proceedings of *STP 230*, 983.
whiteware
Report of Committee C-21, 287.
Ceramic Tile
engineering properties tests (Fitzgerald and Kastenbein). Published in ASTM BULLETIN, No. 231, July, 74 (TP162) (*R*).
Charter Amendment
Special Meeting for Amendment of ASTM Charter, 1375.
Chemical Analysis
metals
Report of Committee E-3, 452.
Report of Committee E-2, 443.
Chemical Resistant Mortars
Report of Committee C-3, 253.
Chemical Resistant Units
Report of Committee C-15, 275.
Chromatography
instrumentation for air pollution measurements (Rogers). Summary of Proceedings of *STP 250*, 1366.
Clay
expansive
laboratory consolidation test (Dawson). Summary of Proceedings of *STP 232*, 1278.
heat of solution
effect of calcination temperature (artificial pozzolans) (Ruiz). Published in ASTM BULLETIN, No. 233, Oct., 51 (TP233).
montmorillonite
specific gravity tests by air displacement (Shea), 1261. Disc., 1268.
Report of Committee C-15, 275.
volcanic
consolidation of, in Mexico City (Zeevaert). Summary of Proceedings of *STP 232*, 1278.
lacustrine
unconfined compression and vane shear tests (Marsal). Summary of Proceedings of *STP 232*, 1278.
Clay Pipe
Report of Committee C-4, 255.
Coal
bulk sampling
interpretation of Enos coal data (Landry). Summary of Proceedings of *STP 242*, 1362.
Report of Committee D-5, 326.
testing plastometer (Hills). Disc. Published in ASTM BULLETIN, No. 231, July, 84 (TP172).
Coal Chemicals
Report of Committee D-16, 386.
Coke
Report of Committee D-5, 326.
Color
Report of Committee E-12, 468.
Compression Testing
air-entrained concrete
with portland blast-furance slag (Lewis and Hubbard), 1143. Disc., 1157.
brick
effect of variations of cappings (Kelch and Emme). Published in ASTM BULLETIN, No. 230, May, 38 (TP116).
concrete
effect of length to diameter ratio (Murdock and Kesler). Disc. Published in ASTM BULLETIN, No. 229, April, 73 (TP91).
effect of capping material on strength of concrete cylinders (Werner), 1166 (*R*). Disc., 1181.
of chemically treated granular soils
effect of wetting and drying and monomer concentration (Schiffman and Wilson), 1218 (*R*).
sand (Roberts and de Souza), 1269 (*R*).
steel
fixtures for testing pin-end columns (Huber). Published in ASTM BULLETIN, No. 234, Dec., 41 (TP253).
Concrete
air-entrained
flexural and compressive strength
with portland blast-furnace slag (Lewis and Hubbard), 1143. Disc., 1157.
canal lining joints
contraction test device (Johns). Published in ASTM BULLETIN, No. 232, Sept., 67 (TP215).
cement strengths (Swayze). Published in ASTM BULLETIN, No. 232, Sept., 54 (TP202).

compressive strength
effect of length to diameter ratio (Murdock and Kesler). Disc. Published in ASTM BULLETIN, No. 229, April, 73 (TP91).
control testing
on Northern Illinois toll highway (Waddell). Published in ASTM BULLETIN, No. 234, Dec., 35 (TP247). Disc., 40 (TP252).
corrosion
by sulfuric acid (Hansen, Vellines, Brandvold). Published in ASTM BULLETIN, No. 231, July, 85 (TP173).
creep and shrinkage
long-time tests (Troxell, Raphael, and Davis), 1101.
curing materials
reflectance tests (Rhodes, Janson, and Brown), 1059. Disc., 1072.
cylinders
effect of capping material on compressive strength (Werner), 1166 (*R*). Disc., 1181.
durability in structures
laboratory testing (Kennedy). Summary of Proceedings of *STP 236*, 1361.
effect of fine aggregate (other than grading) on strength and durability of mortar (Dempsey), 1121. Disc., 1135.
highway durability and light reflectance
extended with silicones (Cahn and Mackey). Published in ASTM BULLETIN, No. 235, Jan., 1959, 37 (TP7).
prestressed
testing on Northern Illinois toll highway (Waddell). Published in ASTM BULLETIN, No. 234, Dec., 35 (TP247). Disc., 40 (TP252).
Report of Committee C-9, 263.
sulfate resistance
with portland cements of C_3A content (with and without pozzolan) (Polivka and Brown), 1077 (*R*). Disc., 1099.
waterproofing materials
test methods (Kocataskin and Swenson). Published in ASTM BULLETIN, No. 229, April, 67 (TP85) (*R*).
See also Cement and Sand.
Concrete Masonry Units
Report of Committee C-15, 275.
Concrete Pipe
Report of Committee C-13, 272.
Conductors
Report of Committee B-1, 128.
Containers
glass
Report of Committee C-14, 274.
shipping
Report of Committee D-10, 355.
Cooperative Activities
Summary of Proceedings of Sixty-first Annual Meeting, 62.
Copper
effect of nuclear radiation (Moteff). Report of Committee B-5 (appendix), 159.
Report of Committee B-2, 133.
Report of Committee B-5 (appendix), 144.
See also Alloys.
Copper Wire
Report of Committee B-1, 128.
Corona
testing of
power separation filter (Sheps). Published in ASTM BULLETIN, No. 230, May, 30 (TP108).
Corrosion
of concrete
by sulfuric acid (Hansen, Vellines, and Brandvold). Published in ASTM BULLETIN, No. 231, July, 85 (TP173).
Report of Advisory Committee on Corrosion, 229.
Report of Committee A-5, 116.
Report of Committee A-10, 125.
Report of Committee B-3, 137.
Report of Committee B-6, 165.
Crack Propagation
congruency principle (Lubahn), 678 (*R*). Disc., 683.
hydrogen embrittlement
from cadmium plating (Klier, Muvdi, and Sachs), 597 (*R*). Disc., 620.
low-blow transition temperature (Orner and Hartbower), 623(*R*). Disc., 634.
notch-bend testing of Ni-Mo-V steel (Lubahn and Yukawa), 661(*R*). Disc., 676.
onset and arrest of
in relation to fracture strengths (Irwin, Kies, and Smith), 640 (*R*). Disc., 658.
Creep
concrete
long-time tests (Troxell, Raphael, and Davis), 1101.
effects of exposure times
in elevated-temperature magnesium alloys (Clapper), 812.
long-time, with ten-year data
on four plastic laminates (Findley and Peterson), 841 (*R*). Disc., 856.
plastics
glass-reinforced (Goldfein). Disc., published in ASTM BULLETIN, No. 229, April, 65 (TP83).
properties at high temperatures
low-shrinkage copper-base alloys (Simmons and Kura), 791. Disc., 805.

D

Detergents
Report of Committee D-12, 365.
Report of Subcommittee X of Committee E-2 (appendix), 446.
Die Casting
Report of Committee B-6, 165.
District Activities. Published in ASTM BULLETIN, No. 227, Jan., 19; No. 229, April, 43; No. 230, May, 22; No. 231, July, 44; No. 232, Sept., 21; No. 233, Oct., 18; No. 234, Dec., 18.
Report of Administrative Committee on District Activities, 89.

Report of Board of Directors, 53.
Summary of Proceedings, 53.
Drain
Report of Committee C-15, 275.
Durability in Structures
Symposium. Summary of Proceedings of *STP 236*, 1361:
buildings (Legget and Hutcheon).
clay (Johnson and Plummer).
concrete
laboratory testing (Kennedy).
introduction and closing comments (Shuman).
masonry and related materials
effect of atmosphere (McBurney).
structural sandwich (Kuenzi and Wood).
weathering (Reinhart).

E

Elastic Properties
triaxial loading test
of cylinders of granular and fine-grain soil with portland cement (Balmer), 1187 (*R*). Disc., 1203.
Elastometer
description and test conditions (Spurr, Heldman, and Myers). Published in ASTM BULLETIN, No. 231, July, 65 (TP153).
Electrical Contact Materials
Report of Committee B-4, 139.
Electrical Heating Alloys
Report of Committee B-4, 139.
Electrical Insulating Materials
encyclopedia of (de Senarclens). Summary of Proceedings of *STP 247*, 1369.
Report of Committee D-9, 345.
Report of Committee F-1, 495.
Electrical Testing
Report of Committee D-9, 345.
Electrodeposited Metallic Coatings
organic coatings, adhesion to chromium plated surfaces
Report of Committee B-8, 217.
supplementary coatings
Report of Committee B-8, 217.
Electron Device
cleaning of components and materials
Symposium. Summary of Proceedings of *STP 246*, 1367:
chemically combined contaminants
chemical etching
for preparing ultraclean tube components (Koontz, Thomas, Craft, and Amron).
emission tester
ultraclean diode for microwave application (Olthuis).
goldplating of molybdenum wire
prior cathode electrocleaning (Etter).
oxide cathodes
thermionic emission as related to glass (Kern and Graney).
parts cleaning
effects on tube performance (Hickle and Crawford).
evaluating by radiotracers (Slater and Donahue).
gaseous contaminants
analysis and control
in processing parts (Elkind and Benn).
carbon
as indicator in metallic tube components (Kerstetter).
conductive graphite coatings
adsorption and desorption characteristics (Stern and Donahue).
hydrogen absorption
by tube parts in processing (Lichtman).
mass spectrometer
design and use (Becker).
to evaluate processing tube materials (Griessel).
introduction (Biondi).
physical and organic contaminants
detection, removal, and control (Feder and Koontz).
dust, measuring and control (Pondy and Helmke).
eliminating by ultrasonic system (Koontz and Amron).
etching of semiconductors
cleaness in mechanical processes (Faust, Jr.).
in receiving tubes
"operation snow white" to higher reliability (Johnson).
planning and operating a clean shop (Dyall and Herman).
soluble contaminants
high-purity intrinsic water (Koontz and Sullivan).
high-purity methyl alcohol (John).
pure water, utilization in manufacture (Pritchett).
Electron Metallography
Symposium on Advances in Electron Metallography. Summary of Proceedings of *STP 245*, 982:
introduction (Nielsen).
microscopy
dislocations in elongation in thin aluminum foils (Wilsdorf).
etchants for studies of magnesium alloys (Moe).
transmission, examination by (Boswell and Smith).
minor phases of heat-resistant alloys (Bigelow, Brockway, and Freeman).
removal of direct replicas (Bridges and Long, Jr.).
titanium alloy with 8 per cent manganese (Progress Report, Non-Ferrous Task Group, Subcommittee XI of ASTM Committee E-4).
vibratory polishing of specimens (Long, Jr. and Gray).
microstructure of age-hardenable alloys (Mihalisin and Carroll).

precipitation-hardening in nickel-base alloys (Bigelow, Amy, Corey, and Freeman).
probe analysis of segregation in Inconel (Birks and Brooks).
Electron Tube Materials
Report of Committee F-1, 495.
Element 41
columbium or niobium. Published in ASTM BULLETIN, No. 227, Jan., 72 (TP38).
Elevated Temperature
cast iron
properties (Kattus and McPherson) (*issued as separate pamphlet ASTM STP 248.*)
chromium steels
properties (Simmons and Cross). (Report ASTM-ASME Joint Committee on Effect of Temperature on the Properties of Metals) (*issued as separate publication ASTM STP 228.*)
effect on stress-rupture properties of malleable iron (Marshall and Sommer), 733 (*R*). Disc., 751.
static tension measurements
of Young's modulus of magnesium alloys (Fenn, Jr.), 826 (*R*). Disc., 838.
strain gages
Symposium on Elevated Temperature Strain Gages. Summary of Proceedings of *STP 230*, 983:
bakelite
for temperatures between −320 and 450 (Madsen).
bonding agents (Moore).
ceramic coatings
for experimental stress analysis (Stren, Jr.).
ceramic-type strain gage cements
resistance measurement (Pitts, Buzzard, and Moore).
evaluator (Martina).
fabricated with Armour Alloy "D"
evaluation configurations (Shrager).
foil (Hines).
for long-time static testing to 650 F (Yanowitz, Berman, and Bleiweis).
for stress measurements in jet engines (Anderson).
introduction (Weiss).
investigations at Grumman Aircraft Engineering Corp. (Stewart).
metalfilm (Bean, Jr.).
nichrome-foil up to 1200 F (Forlifer).
optical (Howerton).
resistance-type (Bloss).
static and dynamic, research in (Kemp).
synthetic mica (Brewer).
temperature compensation
(Friedman).
(Gray, Grossman, and Rubin).
thermal stress measurements (DeMichele).
testing at Rolls-Royce (Drew).
to 900 F, laboratory evaluation (Day).
wire
alloy, stability (Metcalfe).
development (Graft).
See also High Temperature.
Elevated Temperature Tests
Report of Committee A-3, 112.
Emission Spectroscopy
Report of Committee E-2, 443.
Enamel
porcelain
Report of Committee C-22, 289.
Engine Antifreezes
Report of Committee D-15, 384.
Fabrics
Report of Committee D-13, 369.

F

Fatigue
carbon steels
effect of reheating (Yokobori). Published in ASTM BULLETIN, No. 234, Dec., 65 (TP277).
effect of geometrical factors
investigated by toric bending specimen (Bennett and Weinberg). Published in ASTM BULLETIN, No. 234, Dec., 53 (TP265).
failure
distribution in flat hardened steel bars (Hyler, Tarasov, and Favor), 540. Disc., 550.
hypothesis based on stabilized unidirectional slip (Younger), 576 (*R*). Disc., 594.
hardened steel
effects of grinding direction and abrasive tumbling (Tarasov, Hyler, and Letner), 528. Disc., 538.
high-strength steels
strength reduction factor for nonmalleable silicate inclusions (Cummings, Stulen, and Schulte), 505. Disc., 512.
high temperature testing—uranium (Bohn and Murphy). Published in ASTM BULLETIN, No. 234, Dec., 57 (TP269).
in-pile
testing apparatus (Drucker). Summary of Proceedings of *STP 233*, 1358.
metals
effect of pressurization (Hu). Published in ASTM BULLETIN No. 234, Dec., 63 (TP275).
nonpropagating cracks (Coffin), 570.
properties, determined by
progressive load test of notched and unnotched short-time and creep prestrained specimens (Vitovec), 552 (*R*).
strength of magnesium alloy KH 31
modified by a weld joint (Breen and Dwyer). Published in ASTM BULLETIN, No. 234, Dec., 60 (TP272).
Symposium on Basic Mechanisms of Fatigue. Summary of Proceedings of *STP 237*, 596:

crack
and slipband formation under alternating stress (Hempel).
formation in silver chloride (Forsyth).
cycle-dependent stress relaxation (Marrow and Sinclair).
during cyclic loading
dislocation behavior in lithium floride crystals (Keith and Gilman).
in metals
and semiconductors (Mason).
failure, recent observations (Wood).
introduction (Dolan).
tester
high temperature, vacuum, controlled environment (Danek and Achter). Published in ASTM BULLETIN, No. 234, Dec., 48 (TP260). Disc., 52 TP264).
torsional properties
of small diameter high carbon steel wire (Burnett), 515. Disc., 525.
Ferric Sulfate–Sulfuric Test
intergranular corrosion resistance
austenitic stainless steel (Streicher). Published in ASTM BULLETIN, No., 229, April, 77 (TP95) (*R*).
Fertilizer
bulk sampling
error considerations (Duncan). Summary of Proceedings of *STP 242*, 1362.
Fibers
Report of Committee D-13, 369.
Fiber Papers
synthetic
technology and end-uses (Taylor and McLaughlin). Summary of Proceedings of *STP 241*, 1363.
testing (Koontz and Owens). Summary of Proceedings of *STP 241*, 1363.
Filter Block, Clay
Report of Committee C-15, 275.
Finances
auditor's report, 65.
Summary of Proceedings of Sixty-first Annual Meeting, 60.
1957. Published in ASTM BULLETIN, No. 228 Feb., 12.
Fire-clay Brick
Report of Committee C-8, 259.
Fire Tests
exploratory with small-scale specimens (Foster). Published in ASTM BULLETIN, No. 228, Feb., 66 (TP72).
finish materials for buildings
flame spread properties (Gross and Loftus). Published in ASTM BULLETIN, No. 230, May, 56 (TP134).
Report of Committee E-5, 459.
surface flammability
measuring by small tunnel-furnace test (Bruce and Miniutti). Published in ASTM BULLETIN, No. 230, May, 61 (TP139).
Flame Photometry
cement
successive determination of manganese, sodium and potassium (Ford). Published in ASTM BULLETIN, No. 233, Oct., 57 (TP239).
Flexible Barrier Materials
Report of Committee F-2, 500.
Floor Polishes
Report of Committee D-21, 422.
Floor Wax
Report of Committee D-21, 422.
Flue Lining
Report of Committee C-15, 275.
Fluoroscopy
in the 2-Mev range (Wegener and Burrill). Published in ASTM BULLETIN, No. 232, Sept., 49 (TP196) (*R*).
Foil
high-temperature gages (Hines). Summary of Proceedings of *STP 230*, 983.
nichrome
strain gages up to 1200 F (Forlifer). Summary of Proceedings of *STP 230*, 983.
Foreign Technical Information Center. Published in ASTM BULLETIN, No. 233, Oct., 93.
Fuels
distillate oils
stability
Symposium. Summary of Proceedings of *STP 244*, 1364:
diesel storage (Jones and MacDonald).
domestic burner nozzles, requirements (Olson).
gel (Dunn, Jr. and Saur).
incompatibility (Ward and Schwartz).
large development oil heating (Edmands).
measuring and control (Clinkenbeard).
need for specification for No. 2 oil? (Gray).
review of the problem (Elmquist).
gasoline
determination of total naphthenes by refractivity intercept method (Groennings). Published in ASTM BULLETIN, No. 227, Jan., 64 (TP30).
liquid
research frontiers (Lyman). Summary of Proceedings of *STP 243*, 1359.
radiation behavior of materials for sodium graphite reactors (Hayward, Wilkinson, Woolsey). Summary of Proceedings of *STP 233*, 1358.
residual—for RR Diesels. Published in ASTM BULLETIN, No. 227, Jan., 25.
Report of Committee D-2, 297.
solid
determination of carbon dioxide (Krumin and Svanks). Published in ASTM BULLETIN, No. 227, Jan., 51 (TP17) (*R*).
See also Oils *and* Petroleum.

G

Gages
based on equation covering gamma-ray density measurement (Pocock and Sommerman), 1345 (*R*).

bulk quantity measurement, petroleum.
Symposium on Bulk Quantity Measurement. Summary of Proceedings of *STP 249*, 1371:
automatic tank gage
application, installation, maintenance (Robinson, Jr.).
performance (Sims).
hand gaging (Peterson and Wagner).
positive displacement meters (Levy).
for gamma radiation density measurements (Pocock and Sommerman), 1345 (*R*).
strain
mechanical, for tension testing of metal alloys
constant volume condition at small plastic strains (Lubahn), 1327 (*R*).
Symposium on Elevated Temperature Strain Gages. Summary of Proceedings of *STP 230*, 983:
bakelite
for temperatures between −320 and 450 (Madsen).
bonding agents (Moore).
ceramic coatings
for experimental stress analysis (Stren, Jr.).
ceramic-type cements
resistance measurements (Pitts, Buzzard, and Moore).
evaluator (Martina).
fabricated with Armour Alloy "D"
evaluation configurations (Shrager).
foil (Hines).
for long-time static testing to 650 F (Yanowitz), Berman, and Bleiweis).
for stress measurements in jet engines (Anderson).
introduction (Weiss).
investigations at Grumman Aircraft Engineering Corp. (Stewart).
metalfilm (Bean, Jr.).
nichrome-foil up to 1200 F (Forlifer).
optical (Howerton).
resistance-type (Bloss).
static and dynamic, research in (Kemp).
synthetic mica (Brewer).
temperature compensation
(Friedman).
(Gray, Grossman, and Rubin).
thermal stress measurements (DeMichele).
testing at Rolls-Royce (Drew).
to 900 F, laboratory evaluation (Day).
wire
alloy, stability (Metcalfe).
development (Graft).
Gamma Radiation
gage for density measurements (Pocock and Sommerman), 1345 (*R*).
Gaseous Fuels
Report of Committee D-3, 314.
Gasoline
engine crankcase oil dilution (Luntz). Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, 1177.
Report of Committee D-2, 297.
See Fuels, Lubricants, Oils, and Petroleum.
Geiger Counter Diffractometer
preparation of samples (Copeland and Bragg). Published in ASTM BULLETIN, No. 228 Feb., 56 (TP62).
Glass
optical
effects of high neutron and gamma fluxes on transmission characteristics (Colp and Woodall). Summary of Proceedings of *STP 233*, 1358.
Report of Committee C-14, 274.
research
recent developments (Shaver). Summary of Proceedings of *STP 243*, 1359.
thermal stability
in ASTM thermometers (Ruh and Conklin). Published in ASTM BULLETIN, No. 233, Oct., 35 (TP217).
Gloss
Report of Committee E-12, 468.
Granite
building
Report of Committee C-18, 281.
Greases
lubricating
separation in storage. Published in ASTM BULLETIN, No. 233, Oct., 27.
Gypsum
Report of Committee C-11, 269.

H

High Explosives
testing
with extensometer (Reynolds). Published in ASTM BULLETIN, No. 234, Dec., 65 (TP 277).
High-Speed Tension
testing machine (Strella, Sigler, Chmura, and Holman). Published in ASTM BULLETIN, No. 228, Feb., 50 (TP56).
High Temperature
alloys
evaluation under static and dynamic stresses (Hawkes and Ek). Published in ASTM BULLETIN, No. 235, Jan., 1959, 46 (TP16).
atmospheric effect on creep-rupture properties of nickel-chromium-aluminum alloys (Shahinian and Achter), 761. Disc., 773.
constant 77 F
in long-time creep tests for plastic laminates (Findley and Peterson), 841, (*R*). Disc., 856.
creep properties
low-shrinkage, copper-base alloys (Simmons and Kura), 791. Disc., 805.
effect of, and strain rate
on magnesium alloys (Fenn and Gusack), 685.
fatigue testing
tester (Danek and Achter). Published in ASTM BULLETIN, No. 234, Dec., 48 (TP260). Disc., 52 (TP264).

uranium (Bohn and Murphy). Published in ASTM BULLETIN, No. 234, Dec., 57 (TP 269).
metals
role in technological future (Williams). (Gillett Lecture) (*issued as separate pamphlet only*). Synopsis published in ASTM BULLETIN, No. 229, April, 7.
properties of nickel-Al_2O_3 alloys (Cremens and Grant), 714 (*R*). Disc., 731.
stability of glasses
in ASTM thermometers (Ruh and Conklin). Published in ASTM BULLETIN, No. 233, Oct., 35 (TP217).
See also Alloys *and* Elevated Temperature.
Highway Construction
application of soil testing
Symposium on the Application of Soil Testing in Highway Design and Construction. Summary of Proceedings of *STP 239*, 1279:
banded sediments, investigation along North Shore in Quebec (Pryer and Woods).
compaction
index of characteristics (McRae).
by laboratory methods for granular soils (Felt).
core drilling machines, power augers, and electrical resistivity, experienced on Pennsylvania Turnpike (Shurig and Yoder).
examples of engineering (Barber).
exploration and mapping
cooperative project in Illinois (Chrysafopoulos).
introduction (Seed).
moisture-density curves, typical in Ohio (Joslin).
test data, value in road planning (Ekse).
inventions, science, and research (Volpe). Published in ASTM BULLETIN, No. 234, Dec., 7.
See also Asphalt, Bituminous Paving Mixtures, *and* Concrete.
Highway Materials
Report of Committee D-4, 317.
Honors and Awards
Summary of Proceedings of Sixty-first Annual Meeting, 59.

I

Impact Strength
transition phenomena
function of temperature (Juillard). Summary of Proceedings of *STP 247*, 1369.
Industrial Wastes
Report of Committee D-19, 399.
In-Place Density
measurement of base-course materials (Griffin). Published in ASTM BULLETIN, No. 230, May, 31 (TP109).
Instrumentation
in the space age (Dever). Published in ASTM BULLETIN, No. 234, Dec., 33.
technological competition (Astin). Published in ASTM BULLETIN, No. 232, Sept., 7.
Insulating Materials
Report of Committee D-9, 345.
Report of Committee D-11, 357.
thermal
Report of Committee C-16, 278.
Insulating Wire and Cable
Report of Committee D-11, 357.
International Relations
Report of Administrative Committee on Standards, 82.
Ion-Exchange Chromatography
for analysis of commercial triphosphate (Spangler, Howes, Jr., and Kish). Published in ASTM BULLETIN, No. 228, Feb., 61 (TP 67) (*R*).
Iron
cast
properties at elevated temperatures (Kattus and McPherson) (*issued as separate pamphlet ASTM STP 248*).
-chromium, -chromium-nickel, and related alloys
corrosion resisting
Report of Committee A-10, 125.
malleable
elevated temperature effect
on stress-rupture properties (Marshall and Sommer), 733 (*R*). Disc., 751.
See also Alloys.
Iron Castings
malleable
Report of Committee A-7, 123.

J

Jet Engines
stress measurements
by high-temperature strain gages (Anderson). Summary of Proceedings of *STP 230*, 983.

L

Laminates
fiberglass reinforced
tensile and compressive properties (Chambers and McGarry). Published in ASTM BULLETIN, No. 233, Oct., 40 (TP222) (*R*).
Lead
Report of Committee B-2, 133.
Leather
Report of Joint Committee on Leather, 431.
Lectures
Gillett
high temperature metals (Williams). Summary of Proceedings, 14 (*issued as separate pamphlet*). Synopsis, published in ASTM BULLETIN, No. 229, April, 7.
Marburg
man and raw materials (Pehrson). Summary of Proceedings, 27 (*to be published as separate pamphlet*). Synopsis, published in ASTM BULLETIN, No. 229, April, 7.
Lime
Report of Committee C-7, 257.

Low Temperature
brittleness test of polyethylene (Bestelink and Turner). Published in ASTM BULLETIN, No. 231, July, 68 (TP156).
−260 F test atmospheres (Brown and Thompson). Published in ASTM BULLETIN, No. 231, July, 59 (TP147).
thermometers calibration corrections at repeated −30 C cooling (Martin, Grossman, and McGovern). Published in ASTM BULLETIN, No. 231, July, 62 (TP150).
Lubricants
gear
oxidation—laboratory and field (Pohorilla and Hart). Published in ASTM BULLETIN, No. 234, Dec., 45 (TP257).
oil, separation in storage. Published in ASTM BULLETIN, No. 233, Oct., 27.
proposed method of test for measurement of extreme pressure properties. Published in ASTM BULLETIN, No. 228, Feb., 28.
Report of Committee D-2, 297.
See also Oils *and* Petroleum.

M

Magnesium
alloys
elevated temperature
effects of exposure time on creep resistance (Clapper), 812.
high-damping capacity
for missile applications (Weissman and Babington), 869. Disc., 887.
high temperature and strain rate effect (Fenn and Gusack), 685.
See also Alloys *and* Non-Ferrous Metals.
Magnetic Properties
Report of Committee A-6, 121.
Magnetic Testing
Report of Committee A-6, 121.
Masonry
durability in structures
effect of the atmosphere (McBurney). Summary of Proceedings of *STP 236*, 1361.
factors affecting clay products (Johnson and Plummer). Summary of Proceedings of *STP 236*, 1361.
Report of Committee C-12, 271.
Mass Spectrometry. Published in ASTM BULLETIN, No. 230, May, 41 (TP119).
Meetings
Annual Meetings
1958. Published in ASTM BULLETIN, No. 227, Jan., 20; No. 228, Feb., 5; No. 229, April, 5; testing apparatus exhibit, No. 229, April, 10; No. 230, May, 5; No. 231, July 15; Summary of Proceedings, 1.
1959–1963, No. 232, Sept., 13.
Committee Week
1958. Published in ASTM BULLETIN, No. 227, Jan., 15; No. 229, April, 47; 1959, No. 234, Dec., 5.
Electronics Components Conference (1959). Published in ASTM BULLETIN, No. 233, Oct., 17.
International Meetings. Published in ASTM BULLETIN, No. 231, July, 53.
Nuclear Analytical Technology Conference. Published in ASTM BULLETIN, No. 230, May, 13.
Nuclear Congress. Published in ASTM BULLETIN, No. 228, Feb., 16; No. 229, April, 58; No. 230; May, 19; No. 231, July, 49.
Pacific Area, 1959. Published in ASTM BULLETIN, No. 230, May, 14; No. 234, Dec., 6.
Physical Metallurgy of Stress Corrosion Fracture Conference. Published in ASTM BULLETIN, No. 233, Oct., 17.
Plastic Testing and Standardization, International Symposium, Philadelphia, Oct., 30–31, 1958. Summary of Proceedings of *STP 247*, 1369.
Soils for Engineering Purposes, Conference on, Mexico, Dec. 1958. Summary of Proceedings of *STP 232*, 1278.
Membership
Report of Board of Directors, 56.
Metal Analysis
solvent extraction
Symposium on Solvent Extraction in the Analysis of Metals. Summary of Proceedings of *STP* 238, 985:
8-hydroxyquinaldine (Hynek).
organic
role in flame photometry (Dean).
ternary liquid systems
convergence of tie lines (Pilloton).
tri-*n*-octylphosphine oxide (White).
with thenoyltrifluoracetone (Moore).
Metal Cleaners
Report of Committee D-12, 365.
Metal Coatings
Report of Committee A-5, 116.
Report of Committee C-22, 289.
Metalfilm
strain gages (Bean, Jr.). Summary of Proceedings of *STP 230*, 983.
Metal Powders
Report of Committee B-9, 223.
Metallography
electron
Symposium on Advances in Electron Metallography. Summary of Proceedings of *STP 245*, 982:
introduction (Nielsen).
microscopy
dislocations in elongation in thin aluminum foils (Wilsdorf).
etchants for studies of magnesium alloys (Moe).
transmission, examination by (Boswell and Smith).
minor phases of heat-resistant alloys (Bigelow, Brockway, and Freeman).
removal of direct replicas (Bridges and Long, Jr.).
titanium alloy with 8 per cent manganese (Progress Report, Non-Ferrous Task Group, Subcommittee XI of ASTM Committee E-4).
vibratory polishing of specimens (Long, Jr. and Gray).

microstructure of age-hardenable alloys (Mihalisin and Carroll).
precipitation-hardening in nickel-base alloys (Bigelow, Amy, Corey, and Freeman).
probe analysis of segragation in Inconel (Birks and Brooks).
Report of Committee E-4, 457.
thermal properties of thirteen metals (Lucks and Deem) (*issued as separate pamphlet ASTM STP No. 227.*)
See also Solvents.
Metallurgy
physical
new advances, research frontiers (Hibbard, Jr.). Summary of Proceedings of *STP 243*, 1359.
Mica
Report of Committee D-9, 345.
synthetic
high temperature strain gage (Brewer). Summary of Proceedings of *STP 230*, 983.
Microscopy
electron
Symposium on Advances in Electron Metallography. Summary of Proceedings of *STP 245*, 982:
dislocations in elongation in thin aluminum foils (Wilsdorf).
etchants for studies of magnesium alloys (Moe).
transmission, examination by (Boswell and Smith).
minor phases of heat-resistant alloys (Bigelow, Brockway, and Freeman).
removal of direct replicas (Bridges and Long, Jr.).
titanium alloy with 8 per cent manganese (Progress Report, Non-Ferrous Task Group, Subcommittee XI of ASTM Committee E-4).
vibratory polishing of specimens (Long, Jr. and Gray).
Missile Reliability
materials and materials engineers (Holaday). Published in ASTM BULLETIN, No. 229, April, 50.
Moisture
surface
measurement of (Sereda). Published in ASTM BULLETIN, No. 228, Feb., 53 (TP59)
Mortar
cement strengths (Swayze). Published in ASTM BULLETIN, No. 232, Sept., 54. (TP202).
portland-cement
effect of fine aggregate on strength and durability (Dempsey), 1121. Disc., 1135.
Report of Committee C-3, 253.
Report of Committee C-12, 271.

N

Naphthenes
determination of, in gasoline
by refractivity intercept graphical method (Groennings). Published in ASTM BULLETIN, No. 227, Jan., 64 (TP30).
Naval Stores
Report of Committee D-17, 389.
Nickel
Report of Committee B-2, 133.
Nickel Alloys
Report of Committee B-2, 133.
See also Alloys.
Nitric-Hydrofluoric Test
intergranular corrosion resistance
type 316L stainless steel (Warren). Published in ASTM BULLETIN, No. 230, May, 45 (TP123) (*R*).
Non-Combustibility Test
Report of Committee E-5, 459.
Nondestructive Testing
Report of Committee E-7, 462.
Non-Ferrous Metals
grade A phosphor bronze strip
study of mechanical properties (Torrey, Gohn, and Wilk), 893. Disc., 910.
magnesium alloys
effects of exposure times on creep resistance (Clapper), 812.
high-damping capacity
for missile applications (Weissman and Babington), 869. Disc., 887.
Young's modulus as function of temperature and metallurgical variables (Fenn, Jr.), 826 (*R*). Disc., 838.
shear strength
single-shear specimen for sheet material (Breindel, Seale, and Carlson), 862.
Non-Woven Fabrics
paper products
technology and end-uses (Taylor and McLaughlin). Summary of Proceedings of *STP 241*, 1363.
Nuclear Age
research frontiers, materials (Antal). Summary of Procedings of *STP 243*, 1359.
Nuclear Applications
Report of Committee B-7, 173.
Nuclear Field
radiation effects
on materials (Reinsmith). Published in ASTM BULLETIN, No. 232, Sept., 37 (TP185) (*R*).
progress in atomic industry in 1957. Published in ASTM BULLETIN, No. 228, Feb., 21.
technical societies' activities. Published in ASTM BULLETIN, No. 231, July ,46.
test reactors' space. Published in ASTM BULLETIN, No. 231, July, 49.
Nuclear Industries
applications of aluminum and magnesium (Groth), 210.
Nuclear Radiation
effect on copper and copper alloys (Moteff), 159.
Report of Committee B-5, 141.
See also Radiation Effect *and* Radioactivity Analysis.
Nuclear Reactors
Report of Committee A-3, 112.

Nuclear Resonance
for studying polymer chain flexibility (Slichter). Summary of Proceedings of *STP 247*, 1369.

O

Oils
composition of petroleum oils (Smith). Published in ASTM BULLETIN, No. 231, July, 55 (*preprint of preface to ASTM STP No. 224*).
fuels, distillate
stability
Symposium. Summary of Proceedings of *STP 244*, 1364:
diesel storage (Jones and MacDonald).
domestic burner nozzles, requirements (Olson).
gel (Dunn, Jr. and Sauer).
incompatibility (Ward and Schwartz).
large development oil heating (Edmands).
measuring and control (Clinkenbeard).
need for specification for No. 2 oil? (Gray).
review of the problem (Elmquist).
separation in lubricating greases in storage. Published in ASTM BULLETIN, No. 233, Oct., 27.
See also Lubricants *and* Petroleum.
Oxychloride Magnesium
Report of Committee C-2, 251.
Oxysulfate Magnesium
Report of Committee C-2, 251.
Ozone
effect on rubber
Symposium. Summary of Proceedings of *STP 229*, 1365:
action with polybutadiene (Erickson, Bernsten, Hill, and Kusy).
chemical antiozonants
factors affecting their utility (Cox).
cracking
quantitative measurement (Veith).
environment (Haagen-Smit).
interlaboratory test program (ASTM Committee D-11, Subcommittee XV, 1957) report (Veith).
introduction (Maassen).
prevention by use of waxes (Ferris, Kurtz, Jr., and Sweely).
reaction (Tucker).
resistance of elastomers
accelerated and natural tests (Vacca).
vulcanizates (Ossefort).

P

Package Materials
testing
relative humidity measurements (Schrier and Wolper). Summary of Proceedings of *STP 241*, 1363.
Paint
Report of Committee D-1, 291.
specifications-tests and controls (Pickett). Published in ASTM BULLETIN, No. 227, Jan., 70 (TP36).
Paper
a laboratory waxing machine (Walter, Evans, Walker, and Askevold). Published in ASTM BULLETIN, No. 227, Jan. 58 (TP24).
Report of Committee D-6, 330.
Symposium on Paper and Paper Products. Summary of Proceedings of *STP 241*, 1363:
Clupak-new high stretch paper, manufacture and performance (Diaz).
internal bonding, new developments (Britt).
introduction (Birdsall).
new cotton paper furnish, properties, application, identification (Harpham).
package materials, relative humidity measurements in testing (Schrier and Wolper).
synthetic fiber papers
technology and end-uses (Taylor and McLaughlin).
testing (Koontz and Owens).
testing, historical developments (Willets and Marchetti).
Paperboard
Report of Committee D-6, 330.
Papers and Publications
Report of Administrative Committee on Papers and Publications, 85.
Particle Size
aerosol contaminants
filtration methods (Katz and Sanderson). Summary of Proceedings of *STP 250*, 1366.
distribution measurements
by light scattering (O'Konski, Briton, and Higuchi). Summary of Proceedings of *STP 250*, 1366.
Report of Committee E-1, 433.
Symposium on Particle Size Measurement. Summary of Proceedings of *STP 234*, 1280:
adsorption methods (Fries).
Blaine fineness tester
for surface area calculation from air permeability data (Ober and Frederick).
characteristics of pigments (Recommended Practice ASTM Method D 1366 – 55 T) (Calbeck).
electronic sizing, three-dimensional
of sub-sieve particles at 6000 per sec (Berg).
introduction (Work).
sedimentation
centrifugal
of airborne dusts, membrane filter collected (Whitby, Algren, and Annis).
determining distribution (Sullivan and Jacobsen).
gravitational and centrifugal
new methods (Berg).
hydrometer method for soils (Bauer).
liquid
distributions (Cartwright and Gregg).

photoelectric
in the sub-sieve range (Harner and Musgrave).
sieving
cracking catalysts
measurement of physical properties (Review of API Committee on Analytical Research) (Mittelman).
electroformed precision micromesh sieves for cracking catalysts (Daeschner, Seibert, and Peters).
fine (Whitby).
particle bank (Stanford Research Institute) (Cadle and Thuman).
standardization (Judson). (*presented by title only.*)
turbidimetric theory
applied to refractory metal and oxide powders (Michaels).

Petroleum
activities of Committee D-2—year ending June 1958. Published in ASTM BULLETIN, No. 233, Oct., 22.
bulk quantity measurement
Symposium on Bulk Quantity Measurement. Summary of Proceedings of *STP 249*, 1371:
automatic tank gage
application, installation, maintenance (Robinson, Jr.).
performance (Sims).
hand gaging (Peterson and Wagner).
positive displacement meters (Levy).
refining industry and ASTM (Ferguson). Published in ASTM BULLETIN, No. 230, May 24.
See also Fuels *and* Oils.

Petroleum Products
proposed method
for ash content of petroleum oils. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1114.
for breaking strength of petroleum waxes. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1098.
for computing ASTM butadiene measurement tables. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1081.
for dilution of automotive crankcase oils (reduced pressure distillation). Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1076.
for distillation of petroleum products. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1158.
for filterability of aviation turbine fuels. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1083.
for hydrocarbon types in low olefinic gasoline by mass spectrometry. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1101.
for knock characteristics of motor fuels above 100 octane number by the motor method. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1167.
for knock characteristics of motor fuels above 100 octane number by the research method. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1121.
for maximum fluidity temperature of residual fuel oil. Published in 1958 a Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1108.
for particulate matter in hydrocarbons. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1087.
for sealing strength of paraffin wax. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1087.
for thermal stability of aviation turbine fuels. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1135.
proposed specification
for aviation turbine fuels. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1131.
Report of Committee D-2, 297.

Phosphors
NBS standard samples. Published in ASTM BULLETIN, No. 233, Oct., 15.

Pigments
Report of Committee D-1, 291.

Pipe
clay
Report of Committee C-4, 255.
concrete
Report of Committee C-13, 272.
plastic
Report of Committee D-20, 410.

Pitch
roofing materials
Report of Committee D-8, 341.

Plastics
brittleness temperature (Webber). Published in ASTM BULLETIN, No. 227, Jan., 40 (TP 6) (*R*).
glass-reinforced
creep (Goldfein). Disc. Published in ASTM BULLETIN, No. 229, April, 65 (TP83).
laminates
long-time creep (Findley and Peterson), 841 (*R*). Disc., 856.
measurement of elastic moduli
by elastometer (Spurr, Heldman, and Myers). Published in ASTM BULLETIN, No. 231, July, 65 (TP153).
proposed method

for environmental stress cracking. Published in 1958 Compilation of ASTM Standards on Plastics, p. 1049.
for measuring surface flammability using a radiant heat energy source. Published in 1958 Compilation of ASTM Standards on Plastics, p. 1055.
Report of Committee D-9, 345.
Report of Committee D-20, 410.
Symposium on Plastics Testing and Standardization. Summary of Proceedings of *STP 247*, 1369:
engineering properties
anisotropic effects in testing (Hogberg).
electrical insulating materials, encyclopedia of (de Senarclens).
mechanical properties
at high speed of testing (Hall).
of molded objects (Dubois, Bossu and Chatain).
shear strength measurement
suitable shape for specimens (Goldenberg, Arcan, and Nicolan).
molecular characterization
classification of macromolecular products on basis of correlation between structure and properties of high polymers (Costecu).
of polymer structure
use of infrared spectroscopy (Potts).
use of X-ray diffraction and scattering (Statton).
polymer chain flexibility
nuclear resonance studies (Slichter).
weight of macromolecules (McIntyre).
standardization
in Belgium
in Czechoslovakia
in Germany (Ehlers).
in Great Britain (Weston and Glass).
in Hungary (Miklovicz).
in Poland (Mrozowski).
in Roumania
in Sweden
in the Netherlands (Wijbrans).
introduction (Hussey, Jr.).
in U.S.A. (Burns).
in U.S.S.R.
summary (Painter).
thermal properties
flow of thermosetting and thermoplastic (von Meysenbug).
rheology of polymer melts (Merz and Cox).
transition of impact strength
function of temperature (Juillard).
Vicat softening point test (Stephenson and Willbourn).
Plastometer
for testing coal (Hills). Disc., published in ASTM BULLETIN, No. 231, July, 84 (TP 172).
Polymers
melts
high shear rate testing
capillary extrusion rheometer (Merz and Colwell). Published in ASTM BULLETIN, No. 232, Sept., 63 (TP211).
polyethylene
low-temperature brittleness test (Bestelink and Turner). Published in ASTM BULLETIN, No. 231, July, 68 (TP156).
environmental stress cracking
bent strip test (Kaufmann). Published in ASTM BULLETIN, No. 233, Oct., 32.
See also Plastics.
Porcelain Enamel
Report of Committee C-22, 289.
Pozzolan
effect on sulfate resistance
of concretes with portland cements of C_3A content (Polivka and Brown), 1077 (*R*). Disc., 1099.
President's Address
materials—a continuing challenge for ASTM, annual address (Kropf). Published in ASTM BULLETIN, No. 231, July, 12. Summary of Proceedings, 43.
rubber, GR-S-vulcanization and standards, Goodyear medal award address (Carpenter—Past President). Published in ASTM BULLETIN, No. 227, Jan., 28 (*R*).
Prestressed Materials
testing on Northern Illinois toll highway (Waddell). Published in ASTM BULLETIN, No. 234, Dec., 35 (TP247). Disc., 40 (TP 252).
Progress Report
melting range of rubber chemicals. (Task Group on the Analysis of Rubber Chemicals, ASTM Committee D-11). Published in ASTM BULLETIN, No. 231, July, 92 (TP180).
separation of oil from lubricating greases in storage (Section IV of Technical Committee G of ASTM Committee D-2). Published in ASTM BULLETIN, No. 233, Oct., 27.
wood pole research program (Markwardt). Published in ASTM BULLETIN, No. 230, May, 12.
Proposed Methods
absorption spectroscopy
Report of Committee E-13 (appendix), 472.
cement
analysis by flame photometry
for manganese, sodium and potassium (Ford). Published in ASTM BULLETIN, No. 233, Oct. 62 (TP244).
lubricants
extreme pressure properties. Published in ASTM BULLETIN, No . 228, Feb., 28.
petroleum products
ash content of petroleum oils. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1114.
breaking strength of petroleum waxes. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1098.
computing ASTM butadiene measurement tables. Published in 1958 Compilation of

ASTM Standards on Petroleum Products and Lubricants, p. 1081.
dilution of automotive crankcase oils (reduced pressure distillation method). Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1076.
distillation of petroleum products. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1158.
filterability of aviation turbine fuels. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1083.
hydrocarbon types in low olefinic gasoline by mass spectrometry. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1101.
knock characteristics of motor fuels above 100 octane number by the motor method. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1167.
knock characteristics of motor fuels above 100 octane number by the research method. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1121.
maximum fluidity temperature of residual fuel oil. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1108.
particulate matter in hydrocarbons. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1087.
test for sealing strength of paraffin wax. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1094.
thermal stability of aviation turbine fuels. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1135.
plastics
environmental stress cracking of plastics. Published in 1958 Compilation of ASTM Standards on Plastics, p. 1049.
measuring the surface flammability of plastics using a radiant heat energy source. Published in 1958 Compilation of ASTM Standards on Plastics, p. 1055.
polyethylene
environmental stress cracking
bent strip test method (Kaufmann). Published in ASTM BULLETIN, No. 233, Oct., 32.
soaps
sodium alkylbenzene sulfonate in synthetic detergents by ultraviolet absorption. Published in 1958 Compilation of ASTM Standards on Soap and Other Detergents, p. 941.
textile materials
dimensional change of knitted fabrics in laundering and dimensional restorability of the laundered fabric. Published in 1958 Compilation of ASTM Standards on Textile Materials, p 753.
pilling propensity of textile fabrics by the random tumble pilling tester. Published in 1958 Compilation of ASTM Standards on Textile Materials, p. 783.
Proposed Specification
aviation turbine fuels. Published in 1958 Compilation of ASTM Standards on Petroleum Products and Lubricants, p. 1131.
Protein Materials
Report of Committee D-25, 429.
Pycnometer
specific gravity of cement
determined in water (Ford). Published in ASTM BULLETIN, No. 231, July, 81 (TP169).

Q

Quality Control
Report of Committee E-11, 466.
Quick Lime
Report of Committee C-7, 257.

R

Radiation Effect
in industrial water and industrial waste water
Symposium on Radioactivity in Industrial Water and Industrial Waste Water. Summary of Proceedings of *STP 235*, 1360:
atomic plants
analysis for radionuclides
in environmental samples (Reid).
in wastes (Kahn, Moeller, Handley, and Reynolds).
waste processing control (Whirl and (Tash).
hazards, test methods (Munter).
introduction (Beleyea).
purity control of APPR primary water (Medin).
summation (Seamon).
surface waters, laboratory analysis methods (Setter, Hagee and Straub).
on materials
Symposium. Summary of Proceedings of *STP 233*, 1358:
dosimetry
techniques for gamma and reactor radiation fields (Schall and Kircher).
introduction (Tschaeche and Kittel).
irradiation facilities
engineering test reactor (Doan).
for study of effects of nuclear radiation on materials (Colp and Snyder).
in NRU (Laurence).
in-pile fatigue testing apparatus (Drucker).
radiation effects
behavior of fuel materials for sodium

graphite reactors (Hayward, Wilkinson, and Woolsey).
damage on reactor control materials (Ray, Anderson and Dunning).
on natural quartz piezoelectric crystals (Graham and Donovan).
on transmission characteristics of some optical glasses, high neutron and gamma fluxes (Colp and Woodall).
on type 347 stainless steel flow separator in the EBR-I core (Bailey and Silliman).
on uranium-fissium alloys and related composition (Smith).
reactor pressure vessel design for nuclear applications (Balai, Kettles, and Bailey).
See also Nuclear Radiation.
Radioactivity Analysis
by laboratory methods
for surface waters (Setter, Hagee, and Straub). Published in ASTM BULLETIN, No. 227, Jan., 35 (TP1) (*R*).
Radioactive Isotopes
for seepage determination on hydraulic structures (Ortiz). Summary of Proceedings of *STP 232*, 1278.
industrial use (Aebersold). Published in ASTM BULLETIN, No. 228, Feb., 27 (*Reprinted from ASTM STP No. 215*, p. 92.)
Refractories
Report of Committee C-8, 259.
Research
materials, research frontiers
Symposium on Materials Research Frontiers. Summary of Proceedings of *STP 243*, 1359:
glass, developments in (Shaver).
instruments (Billings).
in the nuclear age (Antal).
liquid fuels (Lyman).
molecular engineering (von Hippel).
physical metallurgy (Hibbard, Jr.).
tailoring the properties (Stevenson).
Report of Administrative Committee on Research, 91.
strength of materials
necessity of fundamental research (Zaustin). Disc. Published in ASTM BULLETIN, No. 231, July, 64 (TP152).
Rheology
of polymer melts
correlation of dynamic and steady flow measurements (Merz and Cox). Summary of Proceedings of *STP 247*, 1369.
Road and Paving Materials
asphalt
durability
effect of ultraviolet light (Sparlin), 1316 (*R*).
slow-setting paving grade
for airfield paving construction (Fenton), 1306.
stripping from aggregate (Brown, Sparks, and Marsh). Summary of Proceedings of *STP 240*, 1326.
bituminous plant mix
suitability of lightweight aggregate to manufacture of (Wycoff). Published in ASTM BULLETIN, No. 235, Jan., 1959, 33 (TP3).
skidding resistance
determined by laboratory method (Shupe and Goetz), 1282.
Report of Committee D-4, 317.
Report of Committee D-18, 393.
See also Aggregate, Bituminous Materials, Bituminous Paving Mixtures, and Concrete.
Roofing
asphalt coating
evaluation of serviceability and suitability (Wilkinson, Striker, and Traxler). Published in ASTM BULLETIN, No. 230, May, 42 (TP120).
bituminous, temperature of (Ballantyne and Spencer.) Disc. Published in ASTM BULLETIN, No. 228, Feb., 67 (TP73).
Roofing Materials
Report of Committee D-8, 341.
Rosin
Report of Committee D-17, 389.
Rotor Forgings
Symposium on Brittle Failure of Rotor Forgings. Summary of Proceedings of *STP 231*, 984:
for turbo-generator
axial test bore (Kreitz).
for power equipment (Foulkes).
inspection of (Danner).
requirements for turbine and generator (Rankin).
research (task group report) (Schaefer).
ultrasonic testing
influence of geometric factors (Krainer and Krainer).
Rubber
effect of ozone
Symposium. Summary of Proceedings of *STP 229*, 1365:
action with polybutadiene (Erickson, Bernsten, Hill, and Kusy).
chemical antiozonants
factors affecting their utility (Cox).
cracking
quantitative measurement (Veith).
environment (Haagen-Smit).
interlaboratory test program (ASTM Committee D-11, Subcommittee XV, 1957) report (Veith).
introduction (Maassen).
prevention by use of waxes (Ferris, Kurtz, Jr., and Sweely).
reaction (Tucker).
resistance of elastomers
accelerated and natural tests (Vacca).
vulcanizates (Ossefort).

new SBR numbers. Published in ASTM BULLETIN, No. 228, Feb., 15.
Report of Committee D-11, 357.
rings and bands
tension testing (Roth and Stiehler). Published in ASTM BULLETIN, No. 233, Oct., 38 (TP220).
vulcanization and standards (Carpenter). Published in ASTM BULLETIN, No. 227, Jan., 28 (*R*).
Rubber Chemicals
melting range (Task Group on the Analysis of Rubber Chemicals, ASTM Committee D-11). Published in ASTM BULLETIN, No. 231, July, 92 (TP180).

S

Samples, preparation of
for Geiger counter diffractometer (Copeland and Bragg). Published in ASTM BULLETIN, No. 228, Feb., 56 (TP62).
Sand
compression testing of (Roberts and de Souza), 1269 (*R*).
Sandwich Construction
durability in structures (Kuenzi and Wood). Summary of Proceedings of *STP 236*, 1361.
structural
Report of Committee C-19, 283.
Semiconductors
Report of Committee F-1, 495.
Sheet Materials
shear strength
single-shear specimens (Breindel, Seale, and Carlson), 862.
Shipping Containers
Report of Committee D-10, 355.
Siding Materials
Report of Committee D-8, 341.
Silicones
to extend concrete highway durability and light reflectance) (Cahn and Mackey). Published in ASTM BULLETIN, No. 235, Jan., 1959, 37 (TP7).
Soaps
proposed method
for sodium alkylbenzene sulfonate in synthetic detergents by ultraviolet absorption. Published in 1958 Compilation of ASTM Standards on Soap and Other Detergents, p. 941.
Report of Committee D-12, 365.
Soils
Conference on Soils for Engineering Purposes. Summary of Proceedings of *STP 232*, 1278:
bearing ratio
California and Iowa, correlation (Davidson, Katti, Kallman, and Gurland).
cohesive
construction control for embankments
a rapid method (Hilf).
compaction
characteristics of gravelly soils (Holtz and Lowitz)
dynamic test (Tamez).
with rubber-tired rollers
effect of tire pressure and lift thicknesses (Turnbull and Foster).
deformations
under repeated stress applications (Seed and McNeill).
expansive clays
laboratory consolidation test (Dawson).
hydraulic structures
seepage determination
by radioactive isotopes (Ortiz).
sampling and rock coring equipment (Van Zelst).
stratified
sinusoidal surface waves (Slade, Jr.).
testing
with transient loads (Whitman).
underpinning and straightening of eleven-story building (Mexico City) (Streu).
volcanic
construction of an earth dam (Lazcano).
consolidation of Mexico City clay (Zeevaert).
lacustrine clays
unconfined compression and vane shear tests (Marsal).
granular
and fine grain
triaxial loading test of cylinders mixed, with portland cement (Balmer), 1187 (*R*). Disc., 1203.
chemically treated
mechanical behavior (Schiffman and Wilson), 1218 (*R*).
measurement
against laterally loaded pile (Matlock and Ripperger), 1245 (*R*).
of moisture "suction" (Penner), 1205 (*R*).
Report of Committee D-18, 393.
testing for highway construction
Symposium on the Application of Soil Testing in Highway Design and Construction. Summary of Proceedings of *STP 239*, 1279:
banded sediments, investigation along North Shore in Quebec (Pryer and Woods).
compaction
index of characteristics (McRae).
by laboratory methods for granular soils (Felt).
core drilling machines, power augers, and electrical resistivity, experienced on Pennsylvania Turnpike (Shurig and Yoder).
examples of engineering (Barber).
exploration and mapping
cooperative project in Illinois (Chryssafopoulos).
introduction (Seed).
moisture-density curves, typical in Ohio (Joslin).
test data, value in road planning (Ekse).
See also Clay *and* Sand.

Solder
Report of Committee B-2, 133.
Solvents
extraction in analysis of metals
Symposium on Solvent Extraction in the Analysis of Metals. Summary of Proceedings of *STP 238*, 985:
8-hydroxyquinaldine (Hynek).
organic
role in flame photometry (Dean).
ternary liquid systems
convergence of tie lines (Pilloton).
use of tri-*n*-octylphosphine oxide (White).
with thenoyltrifluoracetone (Moore).
Report of Committee D-1, 291.
Spectrochemical Analysis
Report of Subcommittee X (Test Group 1) of Committee E-2 (appendix), 446.
Spectrometry
instrumentation for air pollution measurements (Rogers). Summary of Proceedings of *STP 250*, 1366:
Spectrometric Data
automatic system. Published in ASTM BULLETIN, No. 231, July, 67 (TP155).
Spectroscopy
infrared
in characterization of polymer structures (Potts). Summary of Proceedings of *STP 247*, 1369.
nuclear magnetic resonance
for studying polymer chain flexibility (Slichter). Summary of Proceedings of *STP 247*, 1369.
Report of Committee E-2, 443.
Report of Committee E-13, 470.
Report of Committee E-13 (appendix), 472.
Standardization
action on standards. Published in ASTM BULLETIN, No. 227, Jan., 15; No. 228, Feb., 10; No. 229, April, 37; No. 230, May, 9; No. 231, July, 39; No. 232, Sept., 6; No. 233, Oct., 12; No. 234, Dec., 11.
air line viewpoint (Kelly). Published in ASTM BULLETIN, No. 228, Feb., 25.
copper and copper alloys
recommendations affecting standards. Report of Committee B-5 (appendix), 144.
electrical insulating materials
Report of Committee D-9 (appendix), 352.
federal government standard index changes. Published in ASTM BULLETIN, No. 227, Jan., 73; No. 228, Feb., 102; No. 229, April, 132; No. 230, May, 69; No. 231, July, 128; No. 232, Sept. 99; No. 233, Oct., 90; No. 234, Dec., 100.
IRAM, materials (Ghirelli de Ciaburri). Published in ASTM BULLETIN, No. 230, May, 20.
light metals and alloys
Report of Committee B-7 (appendix), 173.
new science of materials (Hochwalt). Published in ASTM BULLETIN, No. 230, May, 27 (TP105).
plastics
Report of Committee D-20 (appendix), 147.
Symposium on Plastics Testing and Standardization. Summary of Proceedings of *STP 247*, 1369:
in Belgium
in Czechoslovakia
in Germany (Ehlers).
in Great Britain (Weston and Glass).
in Hungary (Miklovicz).
in Poland (Mrozowski).
in Roumania
in Sweden
in the Netherlands (Wijbrans).
in U.S.A. (Burns)
in U.S.S.R.
Report of Administrative Committee on Standards, 79.
steel
Report of Committee A-1 (appendix), 94.
textile materials
Report of Committee D-13 (appendix), 371.
Statistical Analysis
Report of Committee E-11, 466.
Steel
ASTM and the steel industry (Veeder). Published in ASTM BULLETIN, No. 231, July, 57.
carbon
fatigue damage—effect of reheating (Yokobori). Published in ASTM BULLETIN, No. 234, Dec., 65 (TP277).
crack propagation
nickel-molybdenum-vanadium
notch-bend testing, size effects (Lubahn and Yukawa), 661 (*R*). Disc., 676.
high strength
hydrogen embrittlement
from cadmium electroplating (Klier, Muvdi, and Sachs), 597 (*R*). Disc., 620.
toughening by warm working (Ripling), 943 (*R*). Disc., 953.
industry and ASTM (Veeder). Published in ASTM BULLETIN, No. 23, July, 57.
intergranular corrosion resistance
stainless, austenitic
ferric sulfate-sulfuric test (Streicher). Published in ASTM BULLETIN, No. 229, April, 77 (TP95) (*R*).
stainless, type 316L
nitric-hydrofluoric acid evaluation (Warren). Published in ASTM BULLETIN, No. 230, May, 45 (TP123) (*R*).
mild
size effect on yielding in bending (Richards), 955. Disc., 967.
Report of Committee A-1, 94.
Report of Committee A-5, 116.
Report of Subcommittee XIV, Committee A-5, 116.
Report of Committee A-6, 121.
rimmed deep-drawing
strain-aging characteristics
effect of strain rate and temper-rolling extension (Fisher, Carlson, and Lankford), 932.
silicon
Report of Committee A-6, 121.

stainless
cold-worked
hysteresis and anelasticity (Lubahn), 971 (*R*).
type 347
radiation effect
on flow-separator in the EBR-I core (Bailey and Silliman). Summary of Proceedings of *STP 233*, 1358.
temper brittleness
microstructural observations (Clancy and Norton), 912 (*R*). Disc., 931.
testing pin-end columns (Huber). Published in ASTM BULLETIN, No. 234, Dec., 41 (TP 253).
welded tubing
beam and column tests with design recommendations (Wolford and Rebholz). Published in ASTM BULLETIN, No. 233, Oct., 45 (TP227) (*R*).
See also Alloys, Fatigue, Metallography, *and* Radiation Effect.
Steel Sheets
Report of Committee A-5, 116.
Report of Subcommittee XIV, Committee A-5, 116.
Steel Wire
high carbon, small diameter
torsional fatigue properties (Burnett), 515. Disc., 525.
Stone
building
Report of Committee C-18, 281.
Strain Gages
high-temperature
Symposium on Elevated Temperature Strain Gages. Summary of Proceedings of *STP 230*, 983:
bakelite
for temperatures between −320 and 450 (Madsen).
bonding agents (Moore).
ceramic coatings
for experimental stress analysis (Stren, Jr.).
ceramic-type strain gage cements
resistance measurement (Pitts, Buzzard, and Moore).
evaluator (Martina).
fabricated with Armour Alloy "D"
evaluation configurations (Shrager).
foil (Hines).
for long-time static testing to 650 F (Yanowitz, Berman, and Bleiweis).
for stress measurements in jet engines (Anderson).
introduction (Weiss).
investigations at Grumman Aircraft Engineering Corp. (Stewart).
metalfilm (Bean, Jr.).
nichrome-foil up to 1200 F (Forlifer).
optical (Howerton).
resistance-type (Bloss).
static and dynamic, research in (Kemp).
synthetic mica (Brewer).
temperature compensation
(Friedman).
(Gray, Grossman, and Rubin).
thermal stress measurements (DeMichele).
testing at Rolls-Royce (Drew).
to 900 F, laboratory evaluation (Day).
wire
alloy, stability (Metcalfe).
development (Graft).
indicators
checking device (Mills, Jr.). Published in ASTM BULLETIN, No. 232, Sept., 62 (TP210).
Strain Rate Effect
and high temperature effect
on magnesium alloys (Fenn and Gusack), 685.
Stress cracking
environmental
bent strip test for polyethylene (Kaufmann). Published in ASTM BULLETIN, No. 233, Oct., 32.
Stress-Strain
autographic recorder (Bouche and Tate). Published in ASTM BULLETIN, No. 228, Feb., 33 (TP39) (*R*).
computer for the SR-4 (Behr and Gusack). Published in ASTM BULLETIN, No. 228, Feb., 43 (TP49).
true stress-true strain computer (DeSisto and Driscoll). Published in ASTM BULLETIN, No. 228, Feb., 46 (TP52).
Suggested Method
caustic soda
spectrochemical analysis
by the solution — a-c arc technique. Report of Committee E-2 (appendix), 446. Published in 1958 Compilation of ASTM Standards on Soap and Other Detergents, p. 944.
Sulfoaluminates
effect on concretes containing high C_3A cement
with or without addition of pozzolan (Polivka and Brown), 1077 (*R*). Disc., 1099.
Surface Moisture
measurement of (Sereda). Published in ASTM BULLETIN, No. 228, Feb., 53 (TP59).

T

Tar
Report of Committee D-4, 317.
Report of Committee D-8, 341.
Technological Progress
research scientist standpoint (Thomas). Published in ASTM BULLETIN, No. 228, Feb., 70 (TP76).
Temperature
function of
on transition of impact strength of plastics (Juillard). Summary of Proceedings of *STP 247*, 1369.

Temperature Effect
on aluminum-aluminum alloys (M257 and SAP) (Cremens, Bryan, and Grant), 753. Disc., 760.
See also Elevated Temperature *and* High Temperature.
Tension Testing
dynamic loading
steel, aluminum and titanium alloys (Crum and Mavis). Published in ASTM BULLETIN, No. 231, July, 88 (TP176).
Test Atmospheres
−260 F temperatures
by portable cold flask (Brown and Thompson). Published in ASTM BULLETIN, No. 231, July, 59 (TP147).
Testing Machines
compression and residual stress of steel fixtures for pin-end columns (Huber). Published in ASTM BULLETIN, No. 234, Dec., 41 (TP 253).
computer
for SR-4 (Behr and Gusack). Published in ASTM BULLETIN, No. 228, Feb., 43 (TP 49).
true stress-true strain (DeSisto and Driscoll). Published in ASTM BULLETIN, No. 228, Feb., 46 (TP52).
elastometer
measurement of plastics (Spurr, Heldman, and Myers). Published in ASTM BULLETIN, No. 231, July, 65 (TP153).
extensometer
for high explosive materials (Reynolds). Published in ASTM BULLETIN, No. 234, Dec., 65 (TP277).
fatigue tester
for high temperature, vacuum, controlled environment (Danek and Achter). Published in ASTM BULLETIN, No. 234, Dec., 48 (TP260). Disc., 52 (TP264).
Report of Committee E-1, 433.
strain gages
indicators
checking device (Mills, Jr.). Published in ASTM BULLETIN, No. 232, Sept., 62 (TP210).
stress-strain
autographic recorders (Bouche and Tate). Published in ASTM BULLETIN, No. 228, Feb., 33 (TP39) (*R*).
tension
high speed (Strella, Sigler, Chmura, and Holman). Published in ASTM BULLETIN, No. 228, Feb., 50 (TP56).
See also Gages *and* Strain Gages.
Testing Methods
flow
applied to thermosetting molding materials (von Meysenbug). Summary of Proceedings of *STP 247*, 1369.
for fluoride ion
in industrial water and waste water
Report of Committee D-19 (appendix), 408.
for molded plastic objects (Dubois, Bossu, and Chatain). Summary of Proceedings of *STP 247*, 1369.
hardness
Report of Committee E-1, 433.
Vicat softening point
correlations, uses, and variants for plastics (Stephenson and Willbourn). Summary of Proceedings of *STP 247*, 1369.
See also Proposed Methods.
Test Sites
Report of Advisory Committee on Corrosion, 229.
Textiles
military (Kennedy). Published in ASTM BULLETIN, No. 232, Sept., 33 (*R*).
Textile Materials
proposed method
for dimensional change of knitted fabrics in laundering and dimensional restorability of the laundered fabric. Published in 1958 Compilation of ASTM Standards on Textile Materials, p. 753.
for pilling propensity of textile fabrics by the random tumble pilling tester. Published in 1958 Compilation of ASTM Standards on Textile Materials, p. 783.
Report of Committee D-13, 369.
Thermal Conductivity
Report of Committee C-16, 278.
Thermal Insulating Materials
Report of Committee C-16, 278.
Thermometers
thermal stability of glasses (Ruh and Conklin). Published in ASTM BULLETIN, No. 233, Oct., 35 (TP217).
calibration corrections
at repeated −30 C cooling (Martin, Grossman, and McGovern). Published in ASTM BULLETIN, No. 231, July, 62 (TP150).
Report of Committee E-1, 433.
Thermostatic Metals
Report of Committee B-4, 139.
Tile
clay
Report of Committee C-15, 275.
drain
Report of Committee C-15, 275.
Timber
Report of Committee D-7, 333.
Titanium
Report of Committee B-2, 133.
Transformer Oil
Report of Committee D-9, 345.
Triaxial Loading Test
of cylinders of granular and fine-grain soil with portland cement (Balmer), 1187 (*R*). Disc., 1203.
Triphosphate
commercial-analysis of
by ion-exchange chromatography (Spangler, Howes, Jr., and Kish). Published in ASTM BULLETIN, No. 228, Feb., 61 (TP 67) (*R*).

U

Unsolved Problems. Published in ASTM BULLETIN, No. 232, Sept., 20.
Ultraviolet Energy
  effect on hardening of asphalt (Sparlin), 1316 (*R*).

V

Vane Shear Test
  in volcanic lacustrine clays (Marsal). Summary of Proceedings of *STP 232*, 1278.
Vapor Transmission
  Report of Committee C-16, 278.
Varnishes
  insulating
    Report of Committee D-9, 345.
  Report of Committee D-1, 291.

W

Water
  effect of, on bituminous paving mixtures
    Symposium on Effect of Water on Bituminous Paving Mixtures. Summary of Proceedings of *STP 240*, 1326:
      anti-stripping additives for bituminous materials
        laboratory study (Critz).
      asphalt paving mixtures
        laboratory and field tests (Klinger and Roediger).
      field observations of behavior (Parr).
      introduction (Proudley).
      relationship of aggregate characteristics (Rice).
      stripping of asphalt from aggregate (Brown, Sparks, and Marsh).
      testing for resistance (Goetz).
  radioactivity in,
    industrial and industrial waste
      Symposium on Radioactivity in Industrial Water and Industrial Waste Water. Summary of Proceedings of *STP 235*, 1360:
        atomic plants
          analysis for radionuclides
            in environmental samples (Reid).
            in wastes (Kahn, Moeller, Handley, and Reynolds).
          waste processing control (Whirl and Tash).
        hazards, test methods (Munter).
        introduction (Belyea).
        purity control of APPR primary water (Medin).
        summation (Seamon).
        surface waters, laboratory analysis methods (Setter, Hagee and Straub).
  Report of Committee D-19, 399.
  surface waters
    radioactivity analysis by laboratory methods (Setter, Hagee, and Straub). Published in ASTM BULLETIN, No. 227, Jan. 35 (TP1) (*R*).
Waterproofing
  Report of Committee D-8, 341.
Waterproofing Materials
  concrete
    test methods (Kocataskin and Swenson) Published in ASTM BULLETIN, No. 229, April, 67 (TP85) (*R*).
Waxes
  floor
    slip resistance and friction measurements. Published in ASTM BULLETIN, No. 232, Sept., 32.
  Report of Committeee D-2, 297.
  Report of Committee D-21, 422.
Weathering
  relation between actual and artificial
    on durability in structures (Reinhart). Summary of Proceedings of *STP 236*, 1361.
Whitewares
  Report of Committee C-21, 287.
Wire
  for high temperature strain gage
    alloy (Metcalfe). Summary of Proceedings of *STP 230*, 983.
    (Graft). Summary of Proceedings of *STP 230*, 983.
  torsion testing
    a recording machine (Burnett). Published in ASTM BULLETIN, No. 227, Jan., 68 (TP34).
Wood
  preservatives
    Report of Committee D-7, 333.
Wood Poles
  research program (Markwardt). Published in ASTM BULLETIN, No. 230, May, 12.

X

X-ray
  use of diffraction and scattering
    in characterization of polymer structure (Statton). Summary of Proceedings of *STP 247*, 1369.

Y

Yarns
  Report of Committee D-13, 369.
Young's Modulus
  of magnesium alloys
    as function of temperature and metallurgical variables (Fenn, Jr.), 826 (*R*). Disc., 838.

Z

Zinc
  Report of Committee B-2, 133.

CONTENTS

PROCEEDINGS

PAGE

Summary of Proceedings of the Sixty-first Annual Meeting 1
Special Meeting for Amendment of ASTM Charter, see p. 1375.
Annual Address by the President—Richard T. Kropf 43
Annual Report of the Board of Directors 47
Appendix I. Report of the Auditors for the Fiscal Year, December 1, 1956 to November 27, 1957 65
Appendix II. Report of Administrative Committee on Standards 79
Appendix III. Report of Administrative Committee on Papers and Publications 85
Appendix IV. Report of Administrative Committee on District Activities 89
Appendix V. Report of Administrative Committee on Research 91
Appendix VI. Report of Administrative Committee on Simulated Service Testing 93

COMMITTEE REPORTS

Ferrous Metals

Report of Committee A-1 on Steel 94
Appendix. Proposed Recommendations Affecting Standards on Steel 100
Report of Committee A-3 on Cast Iron 112
Report of Committee A-5 on Corrosion of Iron and Steel 116
Report of Committee A-6 on Magnetic Properties 121
Report of Committee A-7 on Malleable Iron Castings 123
Report of Committee A-10 on Iron-Chromium, Iron-Chromium-Nickel, and Related Alloys 125

Non-Ferrous Metals

Report of Committee B-1 on Wires for Electrical Conductors 128
Report of Committee B-2 on Non-Ferrous Metals and Alloys 133
Report of Committee B-3 on Corrosion of Non-Ferrous Metals and Alloys 137
Report of Committee B-4 on Metallic Materials for Electrical Heating, Electrical Resistance and Electrical Contacts 139
Report of Committee B-5 on Copper and Copper Alloys, Cast and Wrought 141
Appendix I. Recommendations Affecting Standards for Copper and Copper Alloys, Cast and Wrought 144
Appendix II. Nuclear Radiation Effect on Copper and Copper Alloys—John Moteff 159
Report of Committee B-6 on Die-Cast Metals and Alloys 165
Appendix. Exposure Tests of Aluminum Alloys SG100A and G8A 167
Report of Committee B-7 on Light Metals and Alloys, Cast and Wrought 173
Appendix I. Proposed Recommendations Affecting Standards for Light Metals and Alloys, Cast and Wrought 177
Appendix II. Atmospheric Exposure of Aluminum and Magnesium Sand and Permanent Mold Castings—L. H. Adam and Marie Dougherty 194
Appendix III. Applications of Aluminum and Magnesium in the Nuclear Industries—W. G. Groth 210
Report of Committee B-8 on Electrodeposited Metallic Coatings 217
Appendix. Summary of Observations of Factors Influencing Adhesion of Organic Coatings to Chromium Plated Surfaces 221
Report of Committee B-9 on Metal Powders and Metal Powder Products 223
Report on Advisory Committee on Corrosion 229
Report of Joint Committee on Effect of Temperature on the Properties of Metals 239

Cementitious, Ceramic, Concrete, and Masonry Materials

PAGE

Report of Committee C-1 on Cement ... 243
Report of Committee C-2 on Magnesium Oxychloride and Magnesium Oxysulfate Cements ... 251
Report of Committee C-3 on Chemical-Resistant Mortars ... 253
Report of Committee C-4 on Clay Pipe ... 255
Report of Committee C-7 on Lime ... 257
Report of Committee C-8 on Refractories ... 259
Report of Committee C-9 on Concrete and Concrete Aggregates ... 263
Report of Committee C-11 on Gypsum ... 269
Report of Committee C-12 on Mortars for Unit Masonry ... 271
Report of Committee C-13 on Concrete Pipe ... 272
Report of Committee C-14 on Glass and Glass Products ... 274
Report of Committee C-15 on Manufactured Masonry Units ... 275
Report of Committee C-16 on Thermal Insulating Materials ... 278
Report of Committee C-18 on Natural Building Stones ... 281
Report of Committee C-19 on Structural Sandwich Constructions ... 283
Report of Committee C-20 on Acoustical Materials ... 285
Report of Committee C-21 on Ceramic Whitewares and Related Products ... 287
Report of Committee C-22 on Porcelain Enamel ... 289

Miscellaneous Materials

Report of Committee D-1 on Paint, Varnish, Lacquer, and Related Products ... 291
Report of Committee D-2 on Petroleum Products and Lubricants ... 297
Proposed Method of Test for Measurement of Extreme Pressure Properties of Lubricants (*See ASTM Bulletin No. 228, February 1958, p. 28*)
Report of Committee D-3 on Gaseous Fuels ... 314
Report of Committee D-4 on Road and Paving Materials ... 317
Report of Committee D-5 on Coal and Coke ... 326
Report of Committee D-6 on Paper and Paper Products ... 330
Report of Committee D-7 on Wood ... 333
Report of Committee D-8 on Bituminous Waterproofing and Roofing Materials ... 341
Report of Committee D-9 on Electrical Insulating Materials ... 345
Appendix. Recommendations Affecting Standards for Electrical Insulating Materials ... 352
Report of Committee D-10 on Shipping Containers ... 355
Report of Committee D-11 on Rubber and Rubber-Like Materials ... 357
Report of Committee D-12 on Soaps and Other Detergents ... 365
Report of Committee D-13 on Textile Materials ... 369
Appendix I. Recommendations Affecting Standards for Textile Materials ... 371
Report of Committee D-14 on Adhesives ... 379
Report of Committee D-15 on Engine Antifreezes ... 384
Report of Committee D-16 on Industrial Aromatic Hydrocarbons and Related Materials ... 386
Report of Committee D-17 on Naval Stores ... 389
Report of Committee D-18 on Soils for Engineering Purposes ... 393
Report of Committee D-19 on Industrial Water ... 399
Appendix. Supporting Data for Methods of Test for Fluoride Ion in Industrial Water and Industrial Waste Water ... 408
Report of Committee D-20 on Plastics ... 410
Appendix. Recommendations Affecting Standards on Plastics ... 417
Report of Committee D-21 on Wax Polishes and Related Materials ... 422
Report of Committee D-22 on Methods of Atmospheric Sampling and Analysis ... 424
Report of Committee D-23 on Cellulose and Cellulose Derivatives ... 426
Report of Committee D-24 on Carbon Black ... 428
Report of Committee D-25 on Casein and Similar Protein Materials ... 429
Report of Joint Committee on Leather ... 431

Miscellaneous Subjects

Report of Committee E-1 on Methods of Testing ... 433
Report of Committee E-2 on Emission Spectroscopy ... 443
Appendix. Suggested Method for Spectrochemical Analysis of Caustic Soda by the Solution - A-C Arc Technique ... 446
Report of Committee E-3 on Chemical Analysis of Metals ... 452
Report of Committee E-4 on Metallography ... 457
Report of Committee E-5 on Fire Tests of Materials and Construction ... 459
Report of Committee E-6 on Methods of Testing Building Constructions ... 461

PAGE
Report of Committee E-7 on Nondestructive Testing 462
Report of Committee E-9 on Fatigue 464
Report of Committee E-11 on Quality Control of Materials 466
Report of Committee E-12 on Appearance 468
Report of Committee E-13 on Absorption Spectroscopy 470
Appendix. Proposed Methods for Evaluation of Spectrophotometers 472

Materials for Specific Applications

Report of Committee F-1 on Materials for Electron Tubes and Semiconductor Devices 495
Report of Committee F-2 on Flexible Barrier Materials 500

TECHNICAL PAPERS

Edgar Marburg Lecture

Man and Raw Materials—E. W. Pehrson (*intended for separate publication only*)

Gillett Memorial Lecture

High-Temperature Metals—Their Role in the Technological Future—Clyde Williams (*issued only as separate pamphlet*)

Fatigue

Tentative Fatigue Strength Reduction Factors for Silicate-Type Inclusions in High-Strength Steels—H. N. Cummings, F. B. Stulen, and W. C. Schulte 505
Discussion 512
Torsional Fatigue Properties of Small Diameter High-Carbon Steel Wire—H. C. Burnett 515
Discussion 525
Effects of Grinding Direction and of Abrasive Tumbling on the Fatigue Limit of Hardened Steel—L. P. Tarasov, W. S. Hyler and H. R. Letner 528
Discussion 538
Distribution of Fatigue Failures in Flat Hardened Steel Test Bars—W. S. Hyler, L. P. Tarasov, and R. J. Favor 540
Discussion 550
Effect of Static Prestrain on the Fatigue Properties Under Uniformly Increasing Stress Amplitude—F. H. Vitovec 552
A Mechanism for Nonpropagating Fatigue Cracks—L. F. Coffin, Jr 570
A Fatigue Hypothesis Based Upon Stabilized Unidirectional Slip—D. G. Younger, Jr. 576
Discussion 594

Symposium on Basic Mechanisms of Fatigue

Summary of Proceedings of the Symposium on Basic Mechanisms of Fatigue (*ASTM Special Technical Publication No. 237*) 596

Papers on Crack Propagation

The Response of High-Strength Steels in the Range of 180,000 to 300,000 psi to Hydrogen Embrittlement from Cadmium Electroplating—E. P. Klier, B. B. Muvdi, and George Sachs 597
Discussion 620
The Low-Blow Transition Temperature—G. M. Orner and C. E. Hartbower 623
Discussion 634
Fracture Strengths Relative to Onset and Arrest of Crack Propagation—G. R. Irwin, J. A. Kies, and H. L. Smith 640
Discussion 658
Size Effects in Slow Notch-Bend Tests of a Nickel-Molybdenum-Vanadium Steel—J. D. Lubahn and S. Yukawa 661
Discussion 676
Correlation of Tests Using the Congruency Principle—J. D. Lubahn 678
Discussion 683

Papers on Effect of Temperature

Effect of Strain Rate and Temperature on the Strength of Magnesium Alloys—R. W. Fenn, Jr. and J. A. Gusack 685
Discussion 696
Aging Characteristics of Nickel-Chromium Alloys Containing Appreciable Amounts of Titanium and Aluminum—N. E. Rogen and N. J. Grant 697
Discussion 709

PAGE

Preparation and High-Temperature Properties of Nickel-Al_2O_3 Alloys—W. S. Cremens and N. J. Grant ... 714
Discussion ... 731
Report on Elevated-Temperature Properties of Chromium Steels—Ward F. Simmons and H. C. Cross (published as ASTM Special Technical Publication No. 228)
Properties of Cast Iron at Elevated Temperatures–J. R. Kattus and Bryan McPherson (ASTM Special Technical Publication No. 248)
Stress-Rupture Properties of Malleable Iron at Elevated Temperatures—L. C. Marshall and G. F. Sommer ... 733
Discussion ... 751
Temperature and Time Stability of M257 and SAP Aluminum - Aluminum Oxide Alloys—W. S. Cremens, E. A. Bryan, and N. J. Grant ... 753
Discussion ... 760
The Effect of Atmosphere on Creep-Rupture Properties of a Nickel-Chromium-Aluminum Alloy—Paul Shahinian and M. R. Achter ... 761
Discussion ... 773
Mechanical and Physical Properties of Three Low-Shrinkage, Copper-Base Casting Alloys—J. G. Kura and R. M. Lang ... 775
The Creep Properties of Three Low-Shrinkage, Copper-Base Casting Alloys—W. F. Simmons and J. G. Kura ... 791
Joint Discussion of Papers by J. G. Kura and R. M. Lang, and W. F. Simmons and J. G. Kura ... 805
Isochronous Stress-Strain Curves for Some Magnesium Alloys Showing the Effects of Varying Exposure Times on Their Creep Resistance—R. B. Clapper ... 812
Young's Modulus of Magnesium Alloys as a Function of Temperature and Metallurgical Variables—R. W. Fenn, Jr. ... 826
Discussion ... 838

Metals

Prediction of Long-Time Creep with Ten-Year Creep Data on Four Plastic Laminates—W. N. Findley and D. B. Peterson ... 841
Discussion ... 856
Evaluation of a Single Shear Specimen for Sheet Material—W. W. Breindel, C. L. Seale, and R. L. Carlson ... 862
A High Damping Magnesium Alloy for Missile Applications—G. F. Weissmann and W. Babington ... 869
Discussion ... 887
A Study of the Variability in the Mechanical Properties of Alloy A Phosphor Bronze Strip—M. N. Torrey, G. R. Gohn, and M. B. Wilk ... 893
Discussion ... 910
Microstructural Observations Pertinent to the Tempering and Temper Brittleness of Steel— W. P. Clancy and M. R. Norton ... 912
Discussion ... 931
The Effects of Strain Rate and Temper Rolling on the Strain-Aging Characteristics of Rimmed, Deep-Drawing Steel—D. H. Fisher, R. L. Carlson, and W. T. Lankford ... 932
Toughening High Strength Steel by Warm Working—E. J. Ripling ... 943
Discussion ... 953
Effect of Size on the Yielding of Mild Steel Beams—C. W. Richards ... 955
Discussion ... 967
Hysteresis and Anelasticity in Cold-Worked Stainless Steel—J. D. Lubahn ... 971
Nuclear Radiation Effect on Copper and Copper Alloys—John Moteff (appended to the B-5 Report, p. 159)
Atmospheric Exposure of Aluminum and Magnesium Sand and Permanent Mold Castings—L. H. Adam and Marie Dougherty (appended to the B-7 Report, p. 194).
Applications of Aluminum and Magnesium in the Nuclear Industries—W. G. Groth (appended to the B-7 Report, p. 210)
Thermal Properties of Thirteen Metals—C. F. Lucks and H. W. Deem (issued only as ASTM Special Technical Publication No. 227)

Symposium on Advances in Electron Metallography

Summary of Proceedings of the Symposium on Advances in Electron Metallography (*ASTM Special Technical Publication No. 245*) ... 982

Symposium on Elevated Temperature Strain Gages

Summary of Proceedings of the Symposium on Elevated Temperature Strain Gages (*ASTM Special Technical Publication No. 230*) ... 983

Symposium on Brittle Failure of Rotor Forgings

PAGE

Summary of Proceedings of the Symposium on Brittle Failure of Rotor Forgings (*ASTM Special Technical Publication No. 231*) 984

Symposium on Solvent Extraction in the Analysis of Metals

Summary of Proceedings of the Symposium on Solvent Extraction in the Analysis of Metals (*ASTM Special Technical Publication No. 238*) 985

Cement and Concrete

Studies on Calcium Sulfoaluminate Admixtures for Expansive Cements—A. Klein and G. E. Troxell 986
Discussion 1008
Variations in Portland Cement—Stanton Walker and D. L. Bloem 1009
Discussion 1033
Aeration Cause of False Set in Portland Cement—W. C. Hansen 1044
Discussion 1050
Reflectance Tests for Concrete Curing Materials—C. C. Rhodes, M. H. Janson and M. G. Brown 1059
Discussion 1072
Influence of Various Factors on Sulfate Resistance of Concretes Containing Pozzolan—Milos Polivka and E. H. Brown 1077
Discussion 1099
Long-Time Creep and Shrinkage Tests of Plain and Reinforced Concrete—G. E. Troxell, J. M. Raphael, and R. E. Davis 1101
The Effect of Fine Aggregate Characteristics Other than Grading on Strength and Durability of Portland-Cement Mortar—J. G. Dempsey 1121
Discussion 1135
Flexural and Compressive Strength Properties of Air-Entrained Concrete with Air-Cooled Blast-Furnace Slag Aggregate—D. W. Lewis and Fred Hubbard 1143
Discussion 1157
The Effect of Type of Capping Material on the Compressive Strength of Concrete Cylinders—George Werner 1166
Discussion 1181

Soils

Shear Strength and Elastic Properties of Soil-Cement Mixtures Under Triaxial Loading—G. G. Balmer 1187
Discussion 1203
Soil Moisture Suction—Its Importance and Measurement—E. Penner 1205
The Mechanical Behavior of Chemically Treated Granular Soils—R. L. Schiffman and C. R. Wilson 1218
Measurement of Soil Pressure on a Laterally Loaded Pile—Hudson Matlock and E. A. Ripperger 1245
Specific Gravity of Montmorillonite Clay Constituents—J. E. Shea 1261
Discussion 1268
The Compressibility of Sands—J. E. Roberts and J. M. de Souza 1269

Conference on Soils for Engineering Purposes

Summary of Proceedings of the Conference on Soils for Engineering Purposes (*ASTM Special Technical Publication No. 232*) 1278

Symposium on Application of Soil Testing in Highway Design and Construction

Summary of Proceedings of the Symposium on Application of Soil Testing in Highway Design and Construction (*ASTM Special Technical Publication No. 239*) . 1279

Symposium on Particle Size Measurement

Summary of Proceedings of the Symposium on Particle Size Measurement (*ASTM Special Technical Publication No. 234*) 1280

Road and Paving Materials

A Laboratory Method for Determining the Skidding Resistance of Bituminous Paving Mixtures—J. W. Shupe and W. H. Goetz 1282
Field Experience and Laboratory Study of Slow Setting Paving Grade Asphalt in Airfield Pavement Construction—D. D. Fenton 1306
Effect of Ultraviolet Light on Viscosity of Thin Films of Asphalt Cements—R. F. Sparlin 1316

PAGE

Symposium on Effect of Water on Bituminous Paving Mixtures

Summary of Proceeding of the Symposium on Effect of Water on Bituminous Paving Mixtures (*ASTM Special Technical Publication No. 240*) 1326

General Testing

The Constant Volume Condition at Small Plastic Strains—J. D. Lubahn 1327
An Analysis of Certain Mathematical Assumptions Underlying the Design and Operation of Gamma-Ray Surface Density Gages—B. W. Pocock and W .E. Sommerman 1345

Symposium on Radiation Effects on Materials

Summary of Proceedings of the Symposium on Radiation Effects on Materials (*ASTM Special Technical Publication No. 233*) 1358

Symposium on Materials Research Frontiers

Summary of Proceedings of the Symposium on Materials Research Frontiers (*ASTM Special Technical Publication No. 243*) 1359

Symposium on Radioactivity in Industrial Water and Industrial Waste Water

Summary of Proceedings of the Symposium on Radioactivity in Industrial Water and Industrial Waste Water (*ASTM Special Technical Publication No. 235*). 1360

Symposium on Some Approaches to Durability in Structures

Summary of Proceedings of the Symposium on Some Approaches to Durability in Structures (*ASTM Special Technical Publication No. 236*) 1361

Symposium on Bulk Sampling

Summary of Proceedings of the Symposium on Bulk Sampling (*ASTM Special Technical Publication No. 242*) 1362

Symposium on Paper and Paper Products

Summary of Proceedings of the Symposium on Paper and Paper Products (*ASTM Special Technical Publication No. 241*) 1363

Symposium on Stability of Distillate Fuel Oils

Summary of Proceedings of the Symposium on Stability of Distillate Fuel Oils (*ASTM Special Technical Publication No. 244*) 1364

Symposium on Effect of Ozone on Rubber

Summary of Proceedings of the Symposium on Effect of Ozone on Rubber (*ASTM Special Technical Publication No. 229*) 1365

Symposium on Instrumentation in Atmospheric Analysis

Summary of Proceedings of the Symposium on Instrumentation in Atmospheric Analysis (*ASTM Special Technical Publication No. 250*) 1366

Symposium on Cleaning of Electronic-Device Components and Materials

Summary of Proceedings of the Symposium on Cleaning of Electronic-Device Components and Materials (*ASTM Special Technical Publication No. 246*) 1367

Symposium on Plastics Testing and Standardization

Summary of Proceedings of the Symposium on Plastics Testing and Standardization (*ASTM Special Technical Publication No. 247*) 1369

Symposium on Bulk Quantity Measurement

Summary of Proceeding of the Symposium on Bulk Quantity Measurement (*ASTM Special Technical Publication No. 249*) 1371

List of Technical Papers Published in ASTM BULLETIN 1372
Special Meeting for Amendment of ASTM Charter 1375
Author Index 1377
Subject Index 1398
List of Special Technical Publications 1420